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PROCEEDINGS OF THE FOURTH ANNUAL MISSOURI RIVER BASIN GOVERNORS' CONFERENCE

April-May 1979

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PROCEEDINGS OF THE FOURTH ANNUAL MISSOURI RIVER BASIN GOVERNORS' CONFERENCE

HELD IN CONJUNCTION WITH THE 28TH MEETING
OF THE
MISSOURI RIVER BASIN COMMISSION

Kansas City, Missouri
April 30 - May 1, 1979

Missouri River Basin Commission
Suite 403, 10050 Regency Circle
Omaha, Nebraska

Cover Photo: Crown Center Hotel

PREFACE

The Missouri River Basin Governors' Conference was established as an annual event by action taken at the initial Missouri River Basin Governors' Conference on Water August 3-4, 1976, in St. Paul, Minn.

The Fourth Annual Missouri River Basin Governors' Conference was held April 30-May 1, 1979, in Kansas City, Mo., in conjunction with the 28th regular quarterly meeting of the Missouri River Basin Commission. Host Governor Joseph Teasdale of Missouri served as conference chairman.

The purpose of an annual conference is to provide a forum for Missouri River Basin Governors to express their views regarding water and related land resources policy aimed at a regional understanding of problems and issues. The conference provides additional direction for activities of the State-Federal Missouri River Basin Commission, which is the principal agency for the coordination of water resources planning in the Missouri River Basin.

Members of the Missouri River Basin Commission are Colorado; Iowa; Kansas; Minnesota; Missouri; Montana; Nebraska; North Dakota; South Dakota; Wyoming; Department of Agriculture; Department of the Army; Department of Commerce; Department of Energy; Environmental Protection Agency; Department of Health, Education and Welfare; Department of Housing and Urban Development; Department of the Interior; Department of Transportation; Yellowstone River Compact Commission; and the Big Blue River Compact Administration.

Canada is an observer.

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Monday, April 30, 1979

1:00 p m - 6:00 p m REGISTRATION (Roanoke Foyer)

5:30 p m - 7:00 p m GOVERNORS' CONFERENCE RECEPTION
(Liberty Room)

Tuesday, May 1, 1979

8:00 a m -12:00 noon REGISTRATION (Century Foyer)

8:45 a m -12:30 p m 4th MISSOURI RIVER BASIN GOVERNORS'
CONFERENCE — PLENARY SESSION (Century Room)

PRESIDING
Governor Joseph Teasdale, Missouri

INTRODUCTORY REMARKS:
Governor Teasdale

CONFERENCE PERSPECTIVE
Millard W. Hall, Chairman
Missouri River Basin Commission

DISCUSSION OF ISSUES BY MISSOURI RIVER
BASIN COMMISSION GOVERNORS

FEDERAL WATER POLICY DEVELOPMENTS:
Daniel P. Beard
Deputy Asst. Sec. for Land & Water Resources,
U.S. Department of the Interior

RESPONSE
Missouri River Basin Governors

CONFERENCE RESOLUTIONS
Governor Teasdale

12:30 p m - 2:00 p.m MRB GOVERNORS' CONFERENCE AND MISSOURI RIVER BASIN COMMISSION
JOINT LUNCHEON (Centennial B)

PRESIDING Millard W. Hall, Chairman
Missouri River Basin Commission

INTRODUCTION OF SPEAKER:
Governor Joseph Teasdale, Missouri

ADDRESS Douglas M. Costle,
Administrator, U.S.
Environmental Protection Agency

CONFERENCE WRAPUP.
Governor Teasdale

Governors of seven of the ten Missouri River Basin States attended the fourth annual Missouri River Basin Governors' Conference April 30 and May 1, 1979, in Kansas City, Missouri. From left are Gov. John Carlin, Kansas; Gov. Robert Ray, Iowa, Gov. Thomas Judge, Montana; Gov. Joseph Teasdale, Missouri; Gov. Arthur Link, North Dakota; Gov. William Janklow, South Dakota; and Gov. Charles Thone, Nebraska

Call to Order and Welcome by Joseph Teasdale, Governor of Missouri

Welcome to all particiating members of the Missouri River Basin Governors' Conference in Kansas City and to all guests and members of the Press and interested parties.

The schedule this morning is packed. However, my staff did some planning and allowed me to make a 30-minute speech. You will be happy to know that I am not going to do it.

I want to welcome you again. I had the pleasure of welcoming many of you last night at dinner and at the ball game. Unfortunately, and I take the blame, I brought the Royals bad luck. But I hope it was an enjoyable evening for you. It was a chance for you to see one of the brighter spots of this metropolitan area — the stadium and the hospitality of Ewing Kauffman and the Kansas City Royals. A pleasant beginning to a rather laborious session, as it should be. A lot of substance is ready with many issues for the Governors. It may be more than we can handle, but I wanted each Governor to have the chance for input, and I asked for the recommendations of the Governors. We will try to move along the schedule as fast as we can.

I would like to point out to you in my welcome address that I think it is particularly pertinent that we are meeting here in Missouri to discuss the Missouri River Basin and its ramifications that affect all of us.

As I pointed out two years ago in Omaha at my first meeting with the Missouri River Basin staff, we are somewhat of the underdog in that we are downstream, so what you do to the river upstream really affects us. In other words, in my opinion, we are more vulnerable. In this State of 4.5 million people, 60 percent are getting their drinking water from the Missouri River. That is one glaring statistic that is making the people of Missouri become very interested and involved in what the Missouri River Basin Commission is doing and what the States are doing with regard to the Missouri River. It links us all in many other ways too, of course.

The second point I want to make is that three times in the last 25 years disastrous flooding has marred Kansas City. Recently in 1977, we had the most disastrous flood here not to mention the property damage and the trauma to the city. Twenty-five lives were lost. These kinds of disasters make us realize the importance of what we are trying to do at this conference, not to mention the other important matters that we will address

I am going to lead the discussion of nine issues giving the Governors time for questions.

Now is the time to give an explanation of the functions of the Missouri River Basin Commission itself. The Chairman of the Commission is Dr. Millard Wayne Hall.

Address by Millard W. Hall, Chairman Missouri River Basin Commission

Chairman Hall

Thank you, Governor Teasdale.

Distinguished Governors, ladies and gentlemen, it gives me great pleasure to participate in the 4th Annual Missouri River Basin Governors' Conference. It is of course my first opportunity to address you as Chairman of the Missouri River Basin Commission. However, I'm not the only newcomer to these deliberations, there are four new Governors here this year. For the benefit of those who are not intimately familiar with regional water resources planning activities, I would like to begin my remarks with a perspective of the Missouri River and its basin.

The River and Its Basin

The Missouri is an awesome river; it drains a basin great in its magnitude and importance to the Nation. Formed by the junction of the Jefferson, Gallatin, and Madison Rivers at Three Forks, Montana, the Missouri flows more than 2,300 miles to the point where it meets the Mississippi River about 15 miles above St. Louis. Major tributaries of the Missouri are the Yellowstone, Little Missouri, Niobrara, Platte, Kansas, Osage, Gasconade, James, Big Sioux, and Grand Rivers. The current total average annual surface flow leaving this system is about 50 million acre-feet — perhaps 15 million acre-feet less than it was prior to settlement and development.

The Missouri River system drains a watershed of more than half a million square miles within the United States — one-sixth of the contiguous U.S. — and about 10,000 square miles north of the Canadian border, which the river itself does not cross. It drains all of Nebraska; most of Montana, North Dakota, South Dakota, and Wyoming; about half of Kansas and Missouri; and smaller parts of Colorado, Iowa and Minnesota. Some 9 million persons inhabit this area, with about 6 million of them living in the basin's urban centers.

Travel Artery

For more than 200 years after its discovery by Europeans — the Frenchmen Marquette and Joliet — in June 1673, the river was the main artery of travel and commerce to the Northwest. Fur traders and trappers led the way using canoes and flat-bottomed boats. Larger boats first navigated the river in 1804, when Lewis and Clark led a party of 40 men up the river to explore the Northwest. Later, settlers used even larger means of transportation — keel boats — which they propelled by hand.

In 1819, steamboat navigation was introduced. The first commercial barge line from St. Louis to Leavenworth, Kansas, was inaugurated in 1829, and steamboat traffic increased tremendously until it reached its peak in 1880.

Mark Twain, best known for his writings about life on the Mississippi, also described something of this period on the Missouri, when he wrote of one of his journeys on the river:

> We were six days going from St. Louis to "St. Joe" — no record is left in my mind now concerning it but a confused jumble of savage-looking snags, which we deliberately walked over with one wheel or the other; and of reefs which we butted and butted, and then retired from and climbed over in some softer place; and of sand bars which we roosted on occasionally, and rested. In fact, the boat might almost as well have gone to 'St. Joe' by land, for she was walking most of the time anyhow.[1]

Today more than 3 million tons of commodities move on the river between St. Louis and Sioux City, Iowa, annually. However, the river today is renowned as a resource serving many other functions.

Economic Growth

In the Missouri River Basin as well as throughout the Nation, early efforts in water resources management centered around the taming and development of our

rivers to meet the purposes of economic growth; including the use of water as a power source, and as an avenue of transportation.

Urbanization and westward expansion led to related but slightly different concerns. The literature of this period is replete with references to uncontrolled and apparently uncontrollable rivers which blocked westward movement at certain times of the year and to those which periodically wrought havoc upon adjacent settlements. For example:

> It is the hungriest river ever created. It is eating all the time — eating yellow clay banks and cornfields, eighty acres at a mouthful. Its yearly menu is ten thousand acres of good, rich farming land, several miles of railroad, a few hundred houses, a forest or two and uncounted miles of sandbars.[2]

Or, another example:

> It is a perpetual dissatisfaction with its bed that is the greatest peculiarity of the Missouri. It is harder to suit in the matter of beds than a traveling man.[2]

Thus, the need was recognized for flood control measures — for dams, levees, bridges, and channelization projects — to bend these waters to the will of man.

A little later in our history, we recognized that the waters of our Western States could be used in the attainment of an improved national economy. In the early part of this century the Congress passed the Reclamation Act, making it national policy to develop and utilize the water resources of our Western States for agriculture and power production to promote industry, commerce, and settlement of this region.

The institutions created to meet these expressed needs — the Corps of Engineers, the Bureau of Reclamation, the Soil Conservation Service, the Tennessee Valley Authority, and others — have for the most part done their jobs quite well. By comparison with most others, this country has excelled in the management of its waters — for navigation, for power production, for irrigation, for urban water supplies, and in the control of flooding.

For example, I am told that this basin now has some 12 million acres of irrigated farms, which, together with its dry land farming, produces one-third of the U.S. wheat crop, one-fourth of the Nation's sorghum and hay, more than one-fifth of its corn, and one-fifth of the country's poultry and livestock. It also contributes to the Nation more than 21 billion kWh of hydroelectric power. And, although this hardly seems the time to mention it to those of you from North Dakota and Minnesota, the ravages of flooding have been controlled to a very large degree.

Growth of New Values

As the country matured, we began to recognize other important uses to which water can be put. The public began to discuss what has come to be called the "amenity" values of water — for example, recreational, fish and wildlife, scenic, and water quality values. New institutions — the Environmental Protection Agency, the Council on Environmental Quality, and the older Fish and Wildlife Service — have been created to assist in the articulation of these values and in the process of helping to balance them against economic values when making water management decisions.

The legitimization of these new values has contributed to a most perplexing dilemma in resource management, for the new values often conflict with the older ones. And, we have yet to produce adequate means, short of expensive, time-consuming ligation, for resolving these conflicts.

These same conflicts have contributed to a re-examination of this Nation's concepts of sound water resources management policies, programs, and procedures. However, while this has been happening, we also have come to recognize the equally serious problem of the absence of a well-defined national policy by which our water and related resources are to be managed.

During the past several months, national debate over water policy, concern about the economic situation in our States and in our Nation, and concern for these newer, quality-oriented values, have worked together to produce an increased commitment to the wise management of the Nation's water resources. This commitment has been expressed, partly, as a new concern over the need for a coordinated, consistent, balanced planning and implementation effort for meeting the Nation's short- and long-range water needs.

Comprehensive Approach

A central part of the problem of providing for improved water resources management in this new context has been in developing institutions through which the complex, conflicting issues of water management can be examined in an impartial, objective way, and their values expressed in balanced, considerate policies and programs. As a Nation, we agreed in 1965 on the need for a mechanism whereby the many Federal and State water interests could be considered together and resolved into management activities acceptable to all concerned; and the creation of the Water Resources Council and river basin commissions was authorized to provide this mechanism.

In the early days of both of these entities, they tended to regard themselves — and to be regarded — as more or less traditional water planning institutions, assessing the water situation in the Nation and in the various regions, and proposing alternative courses of action for dealing with these situations. Usually, these alternatives have dealt only with surface water and only with water supply and demand, and most of them have taken the form of suggestions for new water development pojects and programs.

However, recognition and concern for the all-pervasive importance of water in our lives has begun to change the way that both these institutions operate.

At the Federal level, the Water Resources Council is seen more and more as an agency for assisting with the development and implementation of national water policy. I have the hope, and will insist on its fulfillment, of making the river basin commissions instrumental in helping to develop and implement this national policy, and especially to assist in tailoring it so that it fits the State and regional situation not like a blanket, but like a well-fitting garment.

For example, an important area wherein the Commission can contribute in this way is in helping to develop consistency between State and regional water resources planning and the planning activities of the various Federal agencies. The need for consistency and comprehensiveness in water resources planning has been addressed by Executive order and by a Water Resources Council policy statement such that new proposals for Federal or federally assisted water management activities must now meet the test of being a part of an approved regional plan or approved regional planning objectives. This policy statement has been long overdue and demands, for its successful implementation, strong State capability in water planning and an equally strong entity for creating a comprehensive regional plan out of the diversity of plans developed by the individual States.

In fact, as State capability in water resources management continues to increase and as States refine plans for managing their water resources, there will be a growing need at the regional and national levels to resolve conflicts that are likely to arise between States over proposed uses of waters and to assure that regional and national needs are balanced against State needs. The framers of the Water Resources Planning Act of 1965 had the wisdom to provide us with institutions sufficient to this task. Now it's up to us to make them work.

Basin Issues and Opportunities

In order to pursue effectively the role I have proposed for the Commission, it will be necessary to understand and articulate fully the basin's water and related resource situation — to understand it and express it in an hydrological, environmental, economical, and social context. And, this must be done, not only with respect to the present, but, ultimately, with respect to the future. We must define our current situation — and then see that questions are raised and answered about the future of water resource management in this basin.

Over the past seven years, the Commission, assisted greatly by the States and by the Federal water agencies operating in the basin, has gone a long way toward developing and analyzing the basic information required for this effort. It has developed a comprehensive regional water management plan and a process for continual updating of this plan. It has developed a process for setting priorities on the water programs and projects needed for implementing this plan. And, it has initiated and conducted special studies of various types which, among other things, have helped us to understand better those emerging issues and opportunities in water management with which we will have to contend.

In fact, I see the Commission as having matured into a smoothly functioning organization capable of addressing and contributing to the resolution of difficult, complex problems wherein State, regional, and national interests all have to be considered and solutions reached through effective compromise. As evidence in support of this allegation, I offer the following examples from the activities of the Commission:

- Increasing competition for water in the Upper Platte River drainage for urban needs, agricultural needs, energy production, and wildlife protection makes this extremely complex hydrologic system a likely point of conflict between the States of Colorado, Wyoming, and Nebraska and, possibly, between one or all of the States and the Federal Government. The Commission is now working with these entities to develop a comprehensive statement of water supply needs and acceptable alternatives for meeting these needs.

- A project which developed a planning reference system for use by State and local planners and decisionmakers in coal development impact areas has been completed recently. The project brought planning information together in a useable form to meet identified local planning needs and provided this information through a several-document reference system.

- An assessment of water availability for use by emerging coal technologies in the Upper Missouri Basin was completed by the

Commission for the Water Resources Council under Section 13(a) of the Federal Non-Nuclear Research and Development Act of 1974.

- A comprehensive study of the Yellowstone River Basin and Adjacent Coal Areas in Montana, Wyoming, and North Dakota has been completed recently and the resultant recommendations for action adopted by the Commission as part of its regional plan.

- A ground water workshop sponsored by the Commission resulted in several recommendations for research leading to legal and administrative improvements in ground water management in the Missouri River Basin. The two top-priority research ideas identified in this way have been funded and the needed research is being conducted through the efforts of several basin universities.

We have provided each of the Governors with a short list of specific issues which we feel are of immediate concern, and which we've asked them to consider discussing at this meeting. However, I feel greatly the need to raise for your future consideration certain broader issues, less immediate perhaps, but of a critical nature as regards the future of this basin.

Water issues can be categorized in many ways — perhaps the most general description I could give to what I see as the basin's central water management problem is allocation in time and space.

Allocation Problems

There is enough water in the Missouri system each year — some 15 trillion gallons — to supply all the people in the world with domestic water for about a month; or to supply all the domestic water requirements of the United States for about two years. There is also an enormous amount of ground water stored in the basin's aquifers.

The point is that we have an abundant total amount of water in the Missouri River Basin to serve all recognized existing and future uses for a long time to come. However, we have a major problem of maldistribution — water is not always in the right place at the right time, as evidenced by droughts and floods. More importantly, this situation may well change as the region and the Nation experience increasing demands for water usage in energy production, in agriculture, in municipal and industrial supplies, for instream needs, and for meeting the obligations of reserved rights.

The issue of water allocation involves the main stem of the Missouri as well as its tributaries. It involves ground water as well as surface water, and it involves water quality considerations as well as those of water quantity. Although the issue is not now critical on the Missouri River main stem, growing demands and conflicts regarding water supplies throughout the basin are pressing all involved parties toward a better understanding of and potential policies for ultimately resolving the problems of water resources allocation. Solutions to these problems may involve legal and institutional aspects related to inter- and intra-basin transfers of water.

Development of water management plans for the Missouri River Basin requires a determination of Indian and Federal reserved water rights and their quantification. Affirmative steps are necessary to create programs that will accelerate the determination and quantification of those water rights.

Pumping of ground water, particularly for irrigation, is increasing at a tremendous rate in many parts of the basin. Despite general optimism, ground water is often a diminishing resource, and several States have implemented or are in the process of implementing regulations to control its use. In several areas, the mounting uses of ground water are adversely affecting surface water supplies. Public pressure, litigation, legislation, and administrative action to resolve these conflicts are imminent. However, methodologies for determining and quantifying the complex relationship between ground water and surface waters are only recently being considered by users, planners, and decisionmakers.

In other geographic areas, depletion of ground water may not affect surface waters, but plans to utilize these surface waters to recharge ground water supplies may create conflicts. Extensive research is needed to determine the hydrologic properties of aquifer systems, the suitability of using saline aquifers for storing fresh water, the feasibility of integrating the management of surface and ground water supplies, the influence of climate on recharge, and the effect of impeding layers on the disposition and movement of recharge water.

Many uses of the basin's water, including navigation, hydroelectric power generation, fish and wildlife habitat — some with significance for international migratory birds — recreation, and water quality maintenance are largely nonconsumptive in nature. Although these nonconsumptive uses generally compete with consumptive uses, they often are not legally recognized in the appropriative system of State water rights and reservations, although they are sometimes legally recognized in States with the riparian system.

Extensive work is needed to develop methodologies for determining requirements for instream flow

purposes including the in-levels of flow needed for each instream functional use. Also, an acceptable approach for balancing competing out-of-stream and instream uses is needed, along with the eventual establishment of means for administering water for nonconsumptive uses.

Priority Water Uses

The broad issue of priority uses of water in the Missouri Basin derives mainly from the problem inherent in the lack of needed quantities of water at the right place and at the right time. Consumption by one use of limited water supplies might preclude other potential consumptive uses of water. In certain areas, for instance, industry must compete against agriculture for scarce water supplies. A prime example in our basin is the growing demand for industrial water for energy development, which many times is distant from the abundant stored supplies of Missouri River water.

Priority considerations also are involved in the competition between consumptive and nonconsumptive uses, such as the impacts of irrigation or other consumptive diversions upon riverine wildlife habitat. Conflicts involving priority uses should be addressed through the multiobjective process of comprehensive planning in which all significant alternative water needs, interests, and values are considered.

Conclusions

Regional water resources planning is a relatively new concept in the United States. The Missouri River Basin Commission was created by the President in 1972 at the request of the Governors of the 10 States in the Missouri River Basin. It is only fitting then that the Governors of Missouri River Basin States meet annually in conference to continue to discuss water resources issues and to continue to help in setting future directions for Commmission activities.

As a Nation and as a region, we have managed during the past 100 years to solve to a great extent many of our water resources problems. We have navigable rivers, effective flood control programs, large cities with adequate water supply and wastewater disposal, and large-scale irrigation for the production of food and fiber. But, in solving these problems we have encountered new problems and new values. We are only now learning to respond to these new problems and values, but we are learning. I see a day when we will be able to accommodate both the old and new values in our approach to resource management. I believe that agencies like the river basin commissions are the necessary catalysts to make this happen.

The Missouri River has been described in various ways over the years. One of my favorites also includes comment on its surrounding basin. I think this description is appropriate here, and I quote the first part:

> The Missouri River is composed of six parts sand and mud and four parts of water. When the wind blows very hard it dries the surface of the river and blows it away in a cloud of dust. It is just dreadful. The natural color of the river is seal-brown, but when it rains for two or three days at a time and gets the river pretty wet, it changes to a heavy iron-gray. . . . It has a current of about twenty-nine miles an hour, and perhaps the largest acreage to the square inch that was ever planted. Steamboats run down the Missouri River. So do newspaper correspondents.[3]

I'm not sure what that last sentence means, but the quote goes on, importantly, I think, for all of us:

> But if the river is not fair to look upon, there is some of the grandest country on either side of it the sun has ever shone upon. How such a river came to run through such a paradise is more than I can understand.[3]

It is this grand country, this paradise, that is my concern today. And, I challenge you to do what you can to make it and keep it as this author described it.

I thank you very much for the opportunity to take part in this 4th Annual Missouri River Basin Governors' Conference. I hope that the perspective that I have offered will be useful, and I look forward to the further discussion of water issues as they affect your individual States.

References

1. Mark Twain, *Roughing It*, American Publishing Co., Hartford, 1886, p. 21, (Quoted in, *Shingling the Fog and Other Plains Lies*, Roger Welsch, Swallow Press, Chicago, 1972, p. 54).

2. George Fitch, "The Missouri River, Its Habits and Eccentricities Described by a Personal Friend," *The American Magazine*, April, 1907, pp. 637-638.

3. Robert Burdette, (Quoted in, *The Summer it Rained: Water and Plains Pioneer Humor*, Roger Welsch, Nebraska Water Resources Center, OCP #1-78, University of Nebraska, Lincoln, April, 1978).

DISCUSSION OF ISSUES BY MISSOURI RIVER BASIN GOVERNORS

Governor Teasdale:

Thank you very much, Wayne. Now the Governors have the opportunity to view the issues under discussion. This is the largest attendance of Governors in the last four meetings. We have seven Governors in attendance. I appreciate your taking the time to come to make the meeting much more meaningful.

Permit me to take the host's privilege and begin the discussion with the item I interjected on the agenda. It has to do with nuclear power.

It would be redundant at this time to say that the public is concerned after what happened at Three Mile Island, Pennsylvania. I would like to report to you Governors that in Missouri the public, through surveys and through reliable reporting, has expressed disapproval of nuclear power; has expressed alarm over the obvious uncertainty of the regulating authority agencies of the Federal Government and the admitted concern of the Governor of Pennsylvania which he had before and during the crisis at Three Mile Island.

I think it is pertinent to point out that in the Missouri River Basin there are three operating nuclear power plants — one at Fort St. Vrain in Colorado, and one each at Ft. Calhoun and Brownville, Nebraska.

The Cooper Plant in Brownville is located directly across the river, almost on the river, from the northwestern portion of Missouri.

As I have mentioned, 60 percent of Missourians get their water supply from the river. We do not know what happens to people within a 50- or 100-mile radius when radioactive material gets into the wind. We also are not certain what happens when it gets into the river.

I am particularly interested in leakage of radioactive iodine. I asked a team of experts to immediately come into Missouri, particularly after the Pennsylvania accident, and they have already submitted their report to me.

I am anything but a scientist; I am a lawyer. The team of people who advised me have been involved with checking out the licensing of nuclear power plants. They knew the right questions to ask and they came in and asked those questions. Look around in this area — in Illinois we have several plants, in Arkansas we have one, and there are many others that surround and could affect Missouri.

Governor Teasdale and Chairman Hall

Specifically for our basin, the public and my Public Service Commission are raising these safety questions:

(1) What about the effects of any kind of radioactive contamination in the Missouri River if the Three Mile Island incident had happened in Nebraska?

(2) What about the transportation of radioactive materials? I don't think anyone from the Federal Government or in the utility business has adequately answered that question, at least not to my satisfaction.

(3) What about the policy of utility companies and nuclear power plants depositing chemical and radioactive wastes? The answer from our Missouri officials, I believe, was, "You don't have to worry until 1997, we're safe until then." Their point was that by that time we will have solved the problem.

I don't know how the people in New York around Niagra Falls are feeling now, but I am sure you have read about the policy of that chemical company depositing its waste there and the result of that

practice. Those questions are on the minds of Missourians, especially since northwest Missouri is so near the Cooper Plant.

To give you an idea, St. Joseph, Missouri, one of the larger cities northwest of here, is approximately 70 miles from this plant in Nebraska. In Atchison County near Rockport, Missouri, I took an agricultural tour, and as I was standing on the river bank in Missouri I could look across the river and see the Cooper Plant. This happened last year and I did not attach too much significance to it, but since the Three Mile Island incident, everyone in the country is asking questions.

I read just this morning and heard last night on the news, testimony before one of the Subcommittees in the Senate by a recognized expert. He was talking about the failure of experts, I believe he was talking about the utility experts, to recognize noticable signs that could have avoided the near calamity at Three Mile Island.

Again, the President has said, and I agree with him, that perhaps the result of what happened in Pennsylvania was a blessing in disguise because it has brought to light all of these questions and now everyone is demanding better answers.

I put this on the agenda because I felt obligated to raise this question. First of all, what will happen if the Missouri River is contaminated by some radioactive material, some iodine, or what happens in the case of an accident?

My consultants said, "Look at Cooper now, because it is operating." The Calloway County Nuclear Plant will be operating in 1982. I am asking for power from the Missouri Legislature to have some State authority, which we do not now have, to ask questions or to impose regulations.

I was told that there are several Federal agencies that are involved with the licensing of a nuclear power plant. The State of Missouri is impotent in this field, so I have raised this question only because I feel obligated to point it out. It may be that only Nebraska and Missouri are concerned. Perhaps some of you other Governors, because of the Colorado nuclear plant and possible plans for construction of other nuclear power plants in your areas may want to enter into the discussion.

I have had some preliminary discussions with Governor Thone and his staff. They have been very cooperative. Emergency preparedness is probably the first order of business. If something happens at that plant, Governors, what notification procedures exist? I'm sure that a joint effort with our disaster people is in order. I'm sure that we can advise the people in this area that there will be workable plans ready in the event there is an accident; however, we are more interested in hearing that there won't be an accident. And, while the plant is safe, I want to know that everything is ready in the event of an accident.

I appreciate the chance now to welcome your comments on the issues that I just raised.

Governor Charles Thone, Nebraska:

Thank you, Governor Teasdale. For all of the Governors here I want to thank you for that royal welcome last night. It does remind me, though, that you Missourians weren't all that hospitable to Nebraskans last fall when we engaged in football. You put a hurdle in our road to the national championship, and that, of course, concerned us — that was a matter of a touchdown. Since then, as you say, we have had Three Mile Island so I guess there has been a lot of concern with a meltdown — if you catch the sly humor that might possibly be contained there.

Governor Teasdale:

The rumor was, Governor, that you chose the site after the game and I thought that was a good reason to bring it up here.

Governor Thone:

Like you, Governor Teasdale, I am a lawyer not a scientist. I haven't seen "China Syndrome." I am not an expert in this field, as I am sure that most of us are not. We have, of course, checked with our technical experts regarding the two nuclear plants in Nebraska. We have had two conferences in my office and they assured us of the safety of those plants.

As you indicated, I saw that newscast last night, also, from the scientist who testified in Washington yesterday. His conclusion was, as I recall, we had to go forward with nuclear energy considering the alternatives and, of course, I don't want to get into a long discourse in that regard, but utility rates are very much on the minds of our consuming public in these days of inflation.

But, to be responsive to the questions that you posed here, the nuclear waste from Nebraska is transported west. So, in that regard, we have no mutual problem with the State of Missouri. As you and I did discuss last evening, the Cooper station does have an emergency plan. It's been in place since the plant started in 1974. I have a copy of it with me here this morning.

It's a definitive plan and, in my opinion, it's well done and thorough, and I am sure if it ever has to be implemented it would be timely and effective. It has been approved by the Nuclear Regulatory Commission, and dry runs are conducted on this plan once a year and coordinated with Federal, State, county, and local officials and agencies.

The last test, and you and I discussed this, was conducted on November 9 of last year. Missouri officials were present from Rockport, Missouri; the Missouri Civil Defense, and Environmental Protection Agency out of Kansas City, Missouri, were represented; and RADEF supervisors from the Missouri Disaster Planning and Operational Office were there.

As far as an alert is concerned, we do have a coordinated effort in this regard. The initial calls would be directed through the State Patrol, which is the focal point for the notification messages. After my office is advised, all other key agencies concerned would be advised including the Missouri Civil Defense.

The emergency situation would be coordinated through all those agencies, of course, with the central responsibility in our State Civil Defense Agency.

Lastly, you mentioned your concern, and I think rightly so, with the possible radioactive liquid contamination of the Missouri River. The plan is extensive and specific in its requirements that the Nebraska Department of Health monitor the radioactive releases so that they don't exceed the minimum permissible limits. If there is any variation here at all in this regard, your Health Department in the State of Missouri will be notified as will Governor Carlin's Kansas State Health Department. So it seems to me that we are taking all of the safety precautions required in this situation.

Lastly, Governor Teasdale, I would like to extend to you an invitation to come to Brownville and Auburn, Nebraska, with me and any officials that you would like to bring along, and I'll bring along all of our technicians and carefully go over and examine our plan and make an on-site investigation of the nuclear power plants. Frankly, I suggest that if you can wait a couple of weeks until the Legislature adjourns in Nebraska it would be easier for me to be out of Lincoln for a day or so. But, I would be pleased to do that with you if it would work out with your plans.

Governor Teasdale:

Thank you very much, Governor. I appreciate your covering all the points. I feel better now that we have started the communication. I would be happy to come and bring the appropriate people from Missouri to inspect your site and go over the safety plan. It would make it much better for me and for all of us to assure the public of Missouri that everything is in order there and to allay their fears as best I can, to show that we are working together on the safety question. The rest is really up to the Federal Government, but this way I will feel certain that we have done all we can to be as ready as we can, to, again put the public's fears to rest.

Governor Thone:

One other thought, Governor, I would like to in the next few days have our Adjutant General and Civil Defense Director come to Missouri to help out in this matter. I will send him to Jefferson City to report to you or to whomever you would suggest. The Adjutant General from Nebraska is Major General Ed Binder. He has coordinated the whole effort here and I think that he could be very helpful in explaining what the situation is.

Governor Teasdale:

That is good news, and I'll be very happy to welcome him. I look forward to that, Governor. Governor Carlin, the State of Kansas is certainly affected, and I would like to give you opportunity to speak.

Governor John Carlin, Kansas:

There is a high public interest regarding nuclear power after Three Mile Island. For example, I tried to take a quiet little visit to the Wolf Creek Plant, which is being built in Kansas, with only the intention of trying to get the feel for the physical plant and to learn a little bit. It turned out to be a major media event, which was not the way it was intended.

I think it points out the tremendous public interest at this point and obviously the pressure on us to be responsible. And, I think we should not suddenly respond in an overanxious way and become antinuclear.

Let's face it, as it was pointed out here, we have nuclear plants in operation in the mid-continent. Kansas has one 30 percent complete, and it is beyond the control of the State of Kansas as to whether that nuclear plant will be finished, so I think that we need to deal with this in a very realistic way.

GOV JOHN CARLIN
KANSAS

As Governor of Kansas, I have said that we will monitor very closely what the feds are doing in terms of whether the plant being built in Burlington is safe and, obviously, as the Governor of Nebraska has pointed out, we have a plan prepared for every possible emergency that might develop at some future date.

But, we need to look at nuclear power from a realistic point of view to help educate the public and to educate ourselves.

The two previous Governors mentioned they are attorneys and not scientists, I am in the unfortunate position that not only am I not a scientist, I'm not an attorney either. So, as a farmer from central Kansas, I know even less about nuclear power, except that from a practical point of view we milk cows differently today than we did when I was a kid, and I am thankful for it.

So, during the progress we are making in the form of providing energy, although it may be somewhat dangerous at times, we need to be careful in evaluating the total picture. Kansans are concerned for safety and in terms of storing the waste. We must be careful how we move forward so as not to find ourselves going backwards in the process of moving forward.

Governor Teasdale:

At the last two Governor's Conference, flood control was a topic for discussion. Flood control in our Missouri River Basin is maintained by dams, levees, and other control works. The possibility of major flooding still exists, though, and a vast amount of damage could be caused by an increase in flood plain occupancy. So, a uniform flood policy in our basin States, in my opinion, can best be developed through the Missouri River Basin Commission. Governor Ray has expressed an interest in this, and I would like to open the discussion of flood plains by inviting the Governor of Iowa to make any comments.

Governor Robert Ray, Iowa:

Governor Teasdale, thank you very much, and thank you for inviting all of us to Missouri. I am sorry that I missed your ballgame last night, but it was nice and warm in Des Moines. Next year we go to North Dakota and, while I love to watch the Royals play baseball, I can hardly wait to see Art Link do a little fiddling.

Coming from an agricultural State, we in Iowa are naturally very interested in the Missouri River Basin and the Missouri River itself for transportation purposes. We are watching the near demise of the Milwaukee railroad. Two weeks from today two-thirds of that railroad is going to shut down, so we are looking more and more to water navigation.

We're interested in that river because of recreation. The figures in anticipation of the growth for water skiing, boating, and water sports are fantastic for the future.

We are interested in that river because of the need for irrigation and for the protection of fish and wildlife.

We are, of course, interested in this Commission because it has the opportunity to deal with these particular aspects of our way of life, but also it has a way to control soil erosion, provide flood control, and make sure that we have some hydroelectric power from the Missouri River.

So, there is a lot to be gained by the wise use of these resources and a lot to be lost by the unwise use of them.

Flood control has received considerable attention in the basin since the Flood Control Act of 1944 was passed by Congress. There have been five large main-stem dams, many smaller tributary resevoirs, and numerous miles of levees which have been constructed along the Missouri River main stem. Although these

many works have prevented extensive flood damage, serious residual flooding potential exists within the 800-mile reach along the main stem of the Missouri River between Gavins Point, South Dakota, and the mouth of the Missouri River.

You mentioned a moment ago about the damage that continues to develop every year by flooding. It amounts to many millions of dollars.

Statistics here show that in 1975 it was something like $16 million and it is estimated something in the order of $61 million after the turn of the century. But those figures don't mean very much because you have to relate them to something. The threat and the potential of a billion-dollar loss is something that we can comprehend and that is possible.

I think it is important that we realize the growing realization of flood-control measures that have developed here in this Commission and know that they alone cannot cope with existing or projected hazards. Federal legislation which addressed the utilization of nonstructural approaches is the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

In that period, several basin States developed comprehensive flood plain management legislation which also dealt with nonstructural approaches meaning zoning, relocation, flood proofing, flood warning systems, and other matters.

The Missouri River Basin Commission has recognized also that it is absolutely imperative that we forge some partnerships to establish some sound flood plain management programs. No single act will be sufficient and adequate. What we are really talking about is, How do we prevent one community or one State from developing its side of the river in a way that may have some harmful effect on the other side of the river, or an adverse effect upstream or downstream.

The Missouri River Basin Commission in 1973 initially recognized the need for flood plain management and established a Flood Plain Committee. That committee was charged with the responsibility of conducting a comprehensive study which would eventually develop recommendations for a flood plain management program for the Missouri River from Gavins Point to the mouth of the river in Missouri.

At that time, hydrologic information was inadequate to begin a study, but by 1976 the committee was able to conceptualize a flood plain management program consisting of two phases: (1) a legal and institutional study and (2) a resources assessment study for the formulation of alternative management strategies.

Much work has been done on the legal and institutional study, and I have been advised that it is basicallly completed now: we are at the stage where we want to now move forward with the other aspect, which is the resource assessment and the formulation of alternative management strategies. You are going to have a resolution before you that I hope everyone can and will support to encourage the completion of that study.

Governor Ray

I think from the completion of that study we will be able to develop some partnerships, some arrangments, and some agreements so that we will have a river basin that all of us can be pleased with, live with, and that will work to the benefit of all our respective States.

You perhaps know of some specific instances where States have not cooperated. Not that they have necessarily been adversaries in the sense that they wanted to argue or fight about a particular point, but the laws have not been consistent.

You people know, you, John and Joe of Kansas and Missouri, better than I, but I undertand that on the Missouri side development takes place with no laws limiting it, while on the Kansas side they have very strict laws limiting development.

That can easily be a major problem, not only economically, but from the sense of protection and preservation. I don't want to address myself to that particular point because you two would be far better versed on it than I.

When I became Governor ten years ago, one of my major problems at that time was flooding. It was

unbelievable to me how many places in my State were flooding, and I didn't know that it was going to be part of my responsibility when I got elected, but neither did I know the second year that it was almost a routine matter.

Since that time, we have taken so many steps and measures in our State that today I can tell you this year, while we did have some flooding, we considered it controlled flooding — we did not have the property damage and the loss of lives. We feel that matters are basically under control but we can never stop. We have to keep moving forward to ensure that what is protection today might won't be be disaster tomorrow.

We want to look ahead at what this Commission is going to do with the Missouri River Basin. All of us have a stake in it. Things move so slowly that it is difficult for us as Governors to comprehend and, upon occasion, it is very exasperating. But when you stop to consider the history of this country and the future of it, whatever we are doing today is going to have a material effect on the future.

I think it is absolutely imperative that we take what needs to be done very seriously so that we protect this water resource for all of our States and the people within those States.

Governor Carlin:

Mr. Chairman, I think it is only fair to point out a couple of things in terms of Missouri and Kansas. We have learned the hard way in Kansas it can be difficult financially when Missouri has certain advantages, so last year we, somewhat in connection with water, changed our liquor laws to compete with you.

I think it would also be significant to point out that you and I signed a memorandum of understanding this morning that we are going to work together on the flood plain on the Missouri River. I believe it is going to be dated today, isn't it, Governor? We are going to do the best we can to cooperate in the area Governor Ray discussed.

Governor Teasdale:

Thank you, Governor Carlin. Again, another display of early leadership in your administration.

Governor Arthur Link, North Dakota:

I take special note of one of the references Governor Ray made relative to what happens when a given State, or the residents of a given State, employ flood

Governor Link

protection measures that may effect other States. We have seen some evidence of the building of dikes on the Red River without total basin coordination. And, although the Red River flood this year went over everyone's dikes, a year ago it was evident that the construction of dikes on one side of the river did substantially affect the flooding on the other side of the river.

I think States that have much in common realize this kind of water management and flood program protection cannot be tolerated. We need to address these kinds of things on a basinwide, interstate, and multistate basis, lest we develop even more serious points of friction and confrontation. So, Governor Ray, I think you address yourself to a very important aspect of flood control programs.

Governor Teasdale:

Thank you, Governor Link. We will move to a third issue. It is a tongue twister — the Ogallala Study — a poetic name. The Ogallala formation, is the source for almost all of the ground water in the high plains region of our country . . . and because of the lowering ground water tables caused by ever increasing amounts of irrigation, I believe that alternative and supplemental sources of supply are needed.

One alternative that would affect the State of Missouri is the large-scale diversion of water from the Missouri River. So, I offer the comment that the Missouri River Basin should be represented on this study. Governor Carlin of Kansas has expressed an interest in this issue.

Governor Carlin:

Mr. Chairman, thank you. First of all, on behalf of everyone from Kansas, I think that I should take this

opportunity to thank you and your staff for the fine hospitality at this conference.

I want to point out that the Governor of Kansas and his staff stayed until the bitter end last night trying to pull the ballgame out. We like to work together to win, but that ends this fall. Maybe we can have some cooperation from other States to make sure we share the fruits of victory on the football field as well.

We haven't had our share in Kansas, and if we are going to work together on water and other critical problems, we are going to have to develop other means by which we can cooperate.

Governor Teasdale:

You know I'll be with you, John.

Governor Carlin:

I appreciate that. You mentioned the high plains. Joe, you have mispronounced it so many times I don't know how to pronounce it now myself. It's the High Plains Ogallala Aquifer Study.

What we are talking about is the source of ground water for a good portion of six States. Not all of the States on this Commission have access to this source of ground water. The issue before this Commission is a ground water problem in this particular aquifer which has led to a study that includes importation of water that would effect essentially all the States involved in this Commission.

The High Plains Study, funded by the Federal Government, will be concluded by 1982. It is a $6 million project, the object of which is to study what's left and how to preserve what's left. Obviously, this is tied to irrigation.

You know, I have had people come to me and ask why all of a sudden we have water problems in Kansas. They could remember 10 or 20 years ago when they never dreamed we would have the problems we have today.

I think one little statistic points out why we have a problem today. As Governors we need to face up to why we are talking about importing water. In the State of Kansas five out of every six gallons of water used goes for irrigation. Irrigation has come in the last 10 to 15 years. Consequently, it has been in the last 10- to 15-year period we have learned the ground water table is not going to stay the same forever.

Unless we learn to manage and conserve properly, we are going to have a serious problem and a serious effect on our economy. I think the bulk of our States depend a great deal on our agricultural economy and so, obviously, we are concerned about this.

This project includes not only a study of the ground water situation but also of the feasibility of importation of water. Hence, the resolution before us.

I ask, Mr. Chairman, do you intend for us to discuss the resolutions now? Is that the intended format. Should I only discuss the issue now, or will we come back to the resolution later?

Governor Teasdale:

Basically the purpose of the first two-hour session this morning was to discuss the issues and we will have time for the presentation of the resolutions.

Governor Carlin:

You're the Chairman, I'll try to follow the program. I just noticed that there were presentations first and resolutions later. I didn't want to repeat myself later. The resolution is quite simple and to the point. I will take it up later if you so desire.

Governor Teasdale:

I think it would be better if we did that.

Governor Carlin:

OK, that is very fine. I will, in addition, point out as I stated although this particular issue affects only about three of our States directly, indirectly it will affect all of us, and, therefore, I felt in offering this resolution it is important this Commission be kept advised of the study and what the Corps of Engineers is doing in the High Plains Study in regard to the use of other sources of water to supplement or replace ground water not being replaced in the traditional way. I would be happy to answer questions or comment further if there is any need.

Governor Link:

Governor Carlin, are you ready at this time to indicate what areas are being considered or will be considered for replacement or supplementation of High Plains water resources in this study?

Governor Carlin:

I will only throw out examples. There isn't any way I can say exactly since the study is just beginning. Obviously, the Missouri River is a source of water that would be looked at as a possibility. There aren't too many options and that is why in our opinion what the Corps is doing with this particular study is something that should be called to our attention as time proceeds. The study will be completed by 1982, and we will meet two or three times between now and then.

I think it is important we are aware of possible plans or suggestions. Is it feasible to go to the river and transport water many miles, in my particular case, to western Kansas where in the last 10 or 15 years we have turned very dry country into an oasis? We raise corn and compete with the corn country, we have fantastic yields year after year, and obviously we are concerned about continuing that economy.

Governor Teasdale:

Turning to the question of Indian water rights, I would like to comment that the total amount of water in the Missouri River Basin reserved as Indian rights has never been quantified; and this uncertainty hampers the effective basinwide water planning. For Missouri's part, and to protect Missouri's rights, a determination of the quantities of water involved needs to be made. I asked Governor Judge of Montana, who is interested in and very versed on this field, to open the discussion on this issue.

Governor Thomas Judge, Montana:

Thank you very much, Governor. First of all, I would like to extend my appreciation for the hospitality that was shown us last night and for that good Montana beef we ate. I also share the concern of the Governor of Nebraska as my alma mater was also rated as No. 1 in the country until they met Missouri and Notre Dame last year. So, Missouri has taken both of us down.

Those of you that were in Great Falls at the conference last year heard a discussion of Indian water rights by Forrest Gerard, the Assistant Secretary of the Interior for the Bureau of Indian Affairs. If you recall, Mr. Gerard stated then that the basic postulate of the BIA was that it asked all of us to accept what is found in the decisions of the Supreme Court — simply, that when Indian reservations were created, what was reserved was not only the land but the use of enough water to fulfill the purposes of the reservation. This was articulated in court decisions in 1908, in the Winters case in 1963, in Arizona versus California in 1976, and the Capehart Case.

The Administration supports the negotiated settlement of Indian water disputes. And, if you recall, I raised some questions on how to negotiate with these tribes in respect to water rights. The Administration felt it was desirable to negotiate rather than litigate — and I agree with that — because litigation is time consuming, it is very expensive, and it is very emotional.

The Administration also supported inventorying tribal claims. They made it very clear that they would very strongly oppose litigating Indian water rights in State courts. If they had to be litigated it would ultimately be done in Federal courts. They didn't really trust State courts, and I take exception to that. But, nevertheless, they are very firm on this issue.

To bring this home, I might mention what has happened most recently in Montana. The Montana Legislature recently passed a bill that provides a claims registration system for water rights existing prior to the passage of our Water Use Act of 1973.

Governor Judge

The bill established four water districts that will have water judges adjudicate water rights. Within 20 days after I sign the bill, which I have not done but I intend to, the Attorney General must petition the Supreme Court for an order. The Court then has 10 days to issue an order that requires everyone with a water right to file a claim, including Indians.

All claims must be filed within four years, then these claims will be adjudicated by the water judges.

The Department of the Interior took very strong exception to including the Indians in the State courts. Mr. Krulitz, who is the solicitor, came to Montana and we negotiated with him through an entire weekend. He was very firm that if the legislature persisted in including the Indians in a State judicatory system, they

would file lawsuits in Federal Court. They have done so. There are 8,000 defendants in the original motion, and there will be considerably more than that.

It takes in literally four drainages which, if you looked at a map of my State, would go across the entire northern part of the State from Glacier Park to North Dakota. I have written to these people advising them to seek legal counsel, but the agreement that we have with the Interior is such that negotiating these water rights is far more preferable to the expensive and time-consuming process of litigation.

So, we are hoping that the State and private water users can, in fact, negotiate and resolve these very difficult questions of water rights with the respective Indian tribes in Montana. We are going to negotiate in good faith and we are going to make every effort to resolve this. I am very hopeful that we can.

I am not overly optimistic, but we are certainly going to negotiate in good faith. I must say that Arizona as well as Utah has had some success in doing this, but it remains to be seen. The cases have been filed in Federal Court. We will begin the process of negotiation as soon as the legislation becomes effective, which will be very shortly.

Governor Teasdale:

The next issue I would like to address is the subject of Federal water project cost sharing. State cost shares on Federal water projects in my State could run into several million dollars, and, to my knowledge, present arrangements have not been trouble-free. These problems should certainly be ironed out before the State cost sharing is instituted. I know that Governor Link is interested in this issue and has comments for us.

Governor Link:

Thank you very much, Governor Teasdale. I want to share with your fellow guests, Governors, and staff persons in expressing our sincere thanks and appreciation for the generous hospitality that you have accorded us since we have come to Kansas City; I thank you very much for it. We will, of course, do all we can to reciprocate a year from now when the conference is held in North Dakota, and I hope it works out for everyone to attend.

I would want, before I go into the cost-sharing issues, to go back to the flood control issue for review, and for the records of this discussion this morning, advise my fellow Governors of a recent development in North Dakota.

I have proposed, and the recent North Dakota Assembly enacted legislation which authorizes, a comprehensive interim two-year Flood Plain Management Study in the State of North Dakota. It is my hope that the study will result in a management act which will involve the concerns of our neighboring States of Minnesota and South Dakota as well as our Canadian neighbors to the north. And, additionally, it will address many of the serious local problems of flood plain management throughout our State.

This is an example of what we need to do when we have local problems which transcend State borders and boundaries. We are part of the Missouri River Basin and we feel that our efforts will be of interest to the entire basin.

Referring to the cost-sharing proposal of the President and the Administration, I think we should view it with some concern and apprehension. We believe it will impose additional responsibilities on the States with relatively little increase in the role of the States regarding water management. We don't think it takes into account the responsibilities that States and local governments already assume in water projects, such as rights of way, acquisition, road and bridge replacements, utilities relocation, and so forth.

It fails to give credit for prior State participation in projects which benefit other States and regions, such as flood control impoundments in the Dakotas. These provide protection of downstream States from floods, and they provide hydropower to other States as well as recreational and navigational benefits. Credit should be given at least for local government income foregone on the inundated lands.

Let me give you one example — we have over half a million acres of rich bottomland, woodland, and grassland inundated by the Garrison reservoir, and the upper reaches of the Oahe reservoir. Our economists in North Dakota projected some $93 million of lost production each year, and this, in part, has been sacrificed to assist in flood control downstream. It would probably be said that in order to afford this flood protection downstream, we have suffered a constant flood in North Dakota.

There is no practical proposal advanced for cost sharing in multistate projects. Some States have substantially more opportunities to generate income than others, and many States have constitutional limitations concerning the debt limit that can be incurred by State governments.

The Commission has a number of programs underway designed to help the States achieve their

goals, including the river basin planning process itself. The priorities process, Federal and State program reviews, several special studies, and now the Hydrology Study, which is in the President's budget for fiscal year 1980, are opportunities, all of them, for us to work together.

We are making steady progress in two different related areas. First of all, we are moving forward, obviously, in the area of planning. And secondly, through the priorities process, which is becoming a model for other river basin commissions, we are effectively communicating our collective desires to the President and the Congress.

I think therein lies one of the major points of river basin approach to basin problems and that is to be in on the planning process and be in on the policy-making process of the Federal agencies. That is why I think it is so very important for us to come together at least on an annual basis and share our concerns and have our Federal counterparts here to hear our concerns so that we may participate in the policy decisions by which we will all have to work together cooperatively to solve problems that cannot be solved individually.

Governor Judge:

I had the resolution opposing the cost-sharing legislation which will be considered this noon. I might point out that last week the Western Governors' Policy Office went on record as opposing this legislation. That represents 10 States. The Western States Water Council, representing 12 States, has also passed a resolution opposing it.

I would like to second what Art Link said. Under the current proposal, the intention is that the States have increased involvement of all phases of water projects. Yet, the proposal contains practically no provision for State participation in planning, construction, or operation of projects.

So what we have is a proposal asking the States to financially participate and yet cutting out their role or reducing it greatly in planning, construction, and operation of water projects. I would hope that this Conference would adopt the resolution and go on record opposing the legislation that will be introduced to the Congress this week.

Governor Thone:

Governor Ray and I decided that these microphones are like water metering. If you go too long, they just turn them off on you. I don't know how popular what I have to say is going to be here, Governor Judge and Governor Link, but I think we all agree that we want to strengthen the State and local water resources management.

I think, in that regard, we have to get our own houses in order if we are going to depend more on the Federal Government. We have a good representative for the Department of the Interior here; maybe he could share some thoughts with us on this matter. But, if we are going to expect the full Federal funding that we've had in the past, it just seems to me from my experience that we are going to get more strings attached and more control which we, of course, don't want. I am going to support this resolution; don't misunderstand me. But do understand that it is vague and leaves a lot to be desired.

The fundamental thought is that if we want to cut all of the dictation and control out from Washington we are going to have to make some hard decisions in this regard in order to get adequate financing at the State level with coordination as we have here in this Missouri Basin. What do you think, Art?

Governor Link:

Of course, we recognize that all of these things have to be paid for. I think that the arbitrary 5 percent and 10 percent figures mean different things to different States. They mean different things for different projects. One of the hazards that is embodied in the policy of that principle is that States with sufficient resources to produce their portion of State participation and contribution can out bid States who have less ability to come up with that cost-sharing factor. Yet, a project in a given State that lacks the resources may eminently have more benefit to a region. Also, how are benefits and obligations to be shared? In the example that I pointed out, the projects that are in the Missouri Basin have, in some cases, as much and probably more benefit to other States. That is the contribution I was referring to which should be credited, and, in some cases, I think it would amply augment a monetary cost-sharing contribution. It is a lack of recognition of this kind of input that I see as a shortcoming in the whole policy. If it becomes locked in, we will then find the States with financial resources that can bid for Federal cost-sharing projects and get the projects, while other States go without or suffer a tremendous additional financial sacrifice out of proportion to the benefits they receive.

Governor William Janklow, South Dakota:

I concur with what Art says. I might not be here when these resolutions come before the group; therefore, I would like to express my support of the resolutions and tell Charlie he has to quit thinking like a Congressman and start thinking like a Governor.

Governor Thone:

Of course, that's what I am doing I think the actual threat is this proposed federalization, and that is what I want to avoid.

Governor Janklow:

The reason I am very supportive of what Art says and what Tom said a moment ago is that you are paying the 10 percent, Charlie, and you are not getting any control. The Federal Government is controlling it. It is telling you to put up 10 percent, and you budget ahead of it. It does this constantly. It tells you, "now you pay this much," and you no longer have the money.

It becomes exasperating the way the Federal Government not only operates, but never learns from its experiences. It has no appreciation for what the people are saying to Governors and to legislatures regarding what they want stopped in spending. The people want money to be used wisely and they all believe in local control. Your Congressman will come back and talk about local control. Then refuse to accept it when it comes time to appropriate money.

GOV. WILLIAM JANKLOW

Here is an opportunity where the Federal Government can actually do it if it will appropriate money where it is needed, as Art says, and not necessarily in a State that has the capability of raising 5 percent or 10 percent, but in poorer states and then let the local people have some voice. But, here the Federal Government gives us voice. It is telling us to find some money to share with it so it doesn't have to put up as large a chunk to finance the project.

If I can interject one thing, and I have to speak up in support of Governor Link, only I would like to carry it a bit further. I think you have to differentiate, and I am not sure they would ever attempt to do that in Washington, although they should. I think you have to differentiate between types of projects.

When representatives of the Federal Government came into my State, beginning after 1944 after the Act was passed in South Dakota, they started buying and taking 500,000 acres of land and promising in return for that land reclamation projects and water projects for domestic, industrial, and agricultural use. They didn't say anything about cost-sharing when they made the deal to come in later with these projects. They said they would provide these projects in return for local in-kind contribution. I believe the North Dakota studies indicate the annual damage to the State of North Dakota is some $90 million. Is that right, Governor Link?

We haven't done any studies, but there is not that much difference between South Dakota and North Dakota with respect to the Missouri River and the way it flows through the two States, except we have more reservoirs. I would assume our economic loss is even greater than other States. No, they didn't say a thing about cost-sharing, now they have broken their word with respect to those projects. How are we to know that if we were to go into a cost-sharing proposal and if we put up our front-end money of 10 percent, 5 percent, or whatever magical figure the Federal Government wants this time, that in 2 years or maybe 5 years, they won't break their word again and decide they are going to end the project? What will we do then? You can't sue Congress for the money and you can't force OMB to appropriate or to make recommendations, so you are out in the cold again.

I'd submit that the track record with the Federal Government in respect to its integrity in water development, especially in our areas, is rather poor. It doesn't have any integrity At least, it does not have any reputation for integrity. Given that fact, who wants to accept its word now? I think it would be very dangerous. If it wants to have cost sharing with respect to the new projects you are talking about, fine; but you do not change the rules with respect to projects you have been talking about and have been in the planning stage since the 1940's. It is not only inherently unfair, but it makes one suspect what the motives really are along the shores of the Potomac.

In addition, I am not aware that any of these policies or any of these attitudes were ever discussed until the projects were being cut off, which I think, again, was an inappropriate time. Many of these projects were already authorized and approved by Congress and are in various stages of funding, funding that goes on for many years over. Apparently, Washington feels now that these projects should also have cost-sharing factors applied to them; that is nonsense. That is not the way to do business.

I submit that this is probably the biggest problem we have, and we should be addressing the lack of a Federal water policy, the lack of any consistency, the lack of any real national understanding in the executive and legislative branches of government regarding where people really want to go and what they want to do with water development. As a result, we are treated with a continuing amount of rhetoric as the policies are changing and nothing is being done.

I cannot fully support this resolution you are talking about. I think it is rhetoric, and I do not think it is worded strongly enough.

Governor Teasdale:

Harris Sherman, who is representing Colorado's Governor, will speak to us. His remarks are on this subject, and I think they will fit into the discussion very well.

At this time, I would like to introduce Mr. Harris Sherman, respresenting Colorado's Governor.

Harris Sherman, Executive Director, Colorado Department of Natural Resources:

Thank you, Governor, very much. Governor Lamm sends his apologies for not being able to be here; but he did wish me to touch on a matter of major importance to the State of Colorado, and that is the issue of cost sharing.

Colorado feels strongly that this legislation is not in the best interest of the member States and will cripple the agricultural potential of the region as well as harm important long-standing recreation, environmental enhancement, flood control, and navigational opportunities for this region. I would like to second the comments that have been offered so far by many of the Governors this morning; but we would also like to offer two additional areas of concern.

One is that the cost-sharing bill appears to have the effect of rewarding those who are economically best able to compete for water and will penalize those least able to compete, and these are users who have traditionally been the beneficiaries of public policies designed to keep them in a competitive position. For example, municipal, industrial, and energy projects where there has always been 100 percent payback to the Federal Government plus interest will not be adversely affected by the cost-sharing legisation, except that they will now have two bankers instead of one. They will repay 90 percent to the Federal Government and 10 percent to the State government. For the State, this 10 percent contribution with M&I users will not involve a risk or a burden since the 10 percent will be paid with interest. It is hard to understand the logic or rationale of the Federal Government's objective in requiring cost sharing where there has been 100 percent payback with interest.

Instead, though, the legislation is aimed at those users least able to pay — agriculture, recreation, environmental enhancement, navigation, and flood control. Agriculture has much to lose by this proposal. Combined with the proposed changes of the Water Resources Council in the Principles and Standards, with which your water experts are familiar, the cost-sharing legislation may well make it impossible to build future irrigation projects.

Under the proposed rules of the game, States advancing 10 percent front-end money for irrigation projects will receive only a fraction of this contribution back because your river basin revenues are not considered as "project revenues" by the Administration. Meanwhile, the Federal Government will recoup revenues and from the irrigators from your river basin revenues which we calculate will be in excess of the 90 percent that the Federal Government advanced on the front end.

As a result, the States will be under a significant disincentive to fund irrigation projects no matter how worthy they are. The same could be said of other users who are less able to compete. Recreation falls into that category. Even though the States are already paying 50 percent of the recreation costs, this legislation requires an additional contribution. Such burdens could cause States to drop recreational features of projects since they cannot recoup monies advanced.

Flood control is another example. Even though the States or their citizens are now paying an excess of 20 percent on most flood control projects, the bill requires an accross-the-board 25 percent contribution from the States through their citizens.

Environmental enhancement projects such as improvements to fish and wildlife refuges, instream flows, and water quality projects appear to be under additional requirements.

How many States will pursue these projects with further cost sharing and with little likelihood of reclaiming or recouping the money they have advanced? We believe that the handwriting is on the wall. The States, faced with new and additional cost-sharing requirements, will increasingly choose those projects with full repayment and forego those

projects or aspects of projects where reimbursement is less likely even though those projects have very worthwhile and important public goals

It is unfortunate that past mechanisms to assist those less able to compete, like our river basin funds, are not now available to us as a result of the cost-sharing legislation. I must say it is ironic that this Administration, which prides itself on its environmental record, would now be undermining those very uses of water that are most consistent with the environment.

The State's second major concern with cost sharing as proposed is that it may well signal the decline of public water development. If those users such as agriculture, navigation, and environmental enhancement cannot compete, and if M&I users decide to privately finance water projects which they clearly have the compacity to do, the public will lose their multipurpose benefits that have long been associated with Federal projects such as access, recreation, flood control, environmental enhancement, and so forth

We fail to see the logic in the proposed cost-sharing legislation and we urge that this body reject it. I am gratified to note that the Western States Water Council, representing 13 States, did unanimously reject the cost-sharing proposal. I think Governor Judge has correctly said that the Western Governors' Policy Office also rejected the proposal unanimously

Mr. Chairman, thank you very much for giving me the opportunity to comment

Introduction
by
Millard W. Hall, Chairman
Missouri River Basin Commission

Chairman Hall

Thank you, Governor Teasdale. I am indeed pleased to be able to present to you today Dan Beard, Deputy Assistant Secretary for Land and Water in the Department of the Interior. Dan is going to speak to us in just a moment about some of the points in the proposed national water policy that have been discussed this morning

Dan comes to us with eminent credentials for making such a presentation and for leading such a discussion; Dr. Beard's present jurisdictions include the Bureau of Land Management, the Bureau of Reclamation, and the Office of Water Research and Technology

Prior to joining the Department of the Interior, he was a member of the Carter-Mondale transition team responsible for the Interior. He was also a member of the President's domestic policy staff.

He served, I believe, for two years as special assistant to Congressman Yeats of the House Subcommittee on Appropriations for the Interior. He served prior to that in the Congressional Research Service in environmental affairs for about four years.

He is eminently qualified to talk to us about resource management in this country and about the Administration's current views on the subject.

Address
by
Daniel P. Beard
Deputy Assistant Secretary
for Land and Water Resources
U.S. Department of the Interior

Governor Teasdale, other Governors, Chairman Hall, ladies and gentlemen, I now know what Daniel in the lion's den felt like. It is indeed a real pleasure for me to be here with you today to talk about some of the water policy matters which you have already discussed.

I think it is significant to recognize one thing although we have disagreements among ourselves, and that is, the activities that have taken place in the last two years, particularly the work that we have put into developing the President's message on water policy which was announced last June, have focused concern and interest on this issue. I think there is no one in this room who would deny that we have significant water problems in this country. They are not going to go away and, in fact, are going to get worse. So, it is contingent upon all of us to do everything we possibly can to begin to address those problems with all the speed that we can.

The President did announce his message, after a great deal of effort in examining options, to the Congress in June 1978. Since that time, we have spent a great deal of time going around the country and working with various groups to implement the various directives which the President has provided us.

We have held regional workshops in Sacramento, Salt Lake City, Boston, and Omaha; we anticipate holding another set of regional workshops this summer. Both formal and informal meetings have been held with groups such as the river basin commissions and congressional leaders; the Governors, particularly the National Governors' Association, have been most helpful to us in working out some of the very specific items. I have also spent a great deal of time traveling around this country working on and talking to various groups about water policy.

I am reminded of a Texas story. I went down to Houston, it was my first trip down there, and, of course, I had to be told a Texas story.

It seems there was this Texas ranger who was chasing a bank robber, went across the border into Mexico, and said to the bank robber, "Where's the money?" It seems that a small fortune was taken.

Well, the bandit spoke no English and the ranger spoke no Spanish so they called in a local bartender as a translater.

The ranger said to the bartender, "Ask him where the money is." He did and the bartender came back and said, "He won't tell you where the money is.'

So, the ranger took his six shooter out, placed it against the bandit's head and said, "If you don't tell me, I'll blow your brains out." Then the bartender translated very quickly.

The bandit looked very scared and explained to the bartender, "If you go about 10 miles north, there is a small village on the north side and about a 100 yards off the road is a well. If you go down the well, about eight bricks on the north side, there is a loose brick. If you pull it out, the money's in there."

The bartender turned to the Texas ranger, shook his head, and said, "He's a very brave bandito." The ranger asked, "What did he say?" The bartender replied, "He said that he would rather die than tell you where that money is."

Well, I'm afraid we are in the same kind of a communication problem about cost-sharing and other water policy problems. I think that there are a number of facts which I would like to put out about cost-sharing since the subject has been brought up.

Cost Sharing

First, for about 30 years, water resource experts have been explaining that there has been a need for comprehensive changes in the cost-sharing for water resource projects financed by the Federal Government. There had been continual recommendations — everything from block grants to the elimination of subsidies, which was a proposal of the National Water Commission in 1973. The Congress recognized this problem and authorized another study in 1974, the Section 80 Study. We had recommendations from the Hoover Commission and other water commissions in the 50's and the 60's.

This is the first time that anyone has ever dared to introduce or seek introduction of legislation to provide changes in the cost-sharing formula. It is a very difficult and complex area and is not an easy process. The bill carries the President's conviction that no method is more effective in achieving a genuine State role in water project decisionmaking than a program of shared responsibility for financing. We believe it is the best way to set water project priorities and to help ensure that Federal programs are responsive to the most pressing water needs.

I think there are a number of facts which have been overlooked and are important to lay out on the table. The first is that the legislative proposal, which has been circulated, would apply only to projects authorized in the future, after passage of this legislation. It does not apply to any project that is already authorized.

Beard

Second, the most significantly important problem we face at the Federal level is the growing backlog of water resource projects. At the present time, in the Corps of Engineers and in the Bureau of Reclamation, we have about a $35 to $36 billion backlog of projects which are under construction or have been authorized for construction.

With inflation rates what they are, the cost of constructing these projects is going to rise more rapidly than we will be able to appropriate the funds to build them. It is obvious that at some point some projects may not be built. The question is which ones should not be built or finished, and how do we select those projects.

One very simple way is for the Federal Government to do it alone, not to set up budget requests for certain projects, argue with the Congress, and make a decision. I think the Administration feels this may not be the best way. A much better way is to gain the involvement of the various States, so they can be involved in the process of deciding which projects should be moved forward.

Because all water resources are allocated and controlled by the individual States, not by the Federal Government, State involvement is critical. So one of the intents of the cost-sharing policy is certainly to gain some additional financial assistance. More importantly, it is to gain another partner in the process of setting priorities for deciding which projects should be built. That is a process which I think is very important. As everyone in this room knows, if there is one thing that is certain about water projects, it is that they eventually end up in the courts somehow, somewhere. The cost-sharing bill will not only help us set priorities, but it will help those closer to the decision to get involved in a decisionmaking process.

Some words have been said today on the question of State involvement in planning, construction, and operation. It is true that we argued among ourselves long and hard about how to write in legislative language to ensure that there would be greater State involvement in the planning and operation and even in the construction of projects. We found that to be an extremely difficult task to be perfectly honest with you. As a result, we have put some general language in the goals and objectives of the act. We have a portion in there which deals with a contract that will be cut between the State and the Federal Government. It is our assumption that, in those contractual negotiations, the exact role that will be played by the States and the Federal Government in these various activities will be worked out. There is no doubt in my mind, however, that should a State put up a dollar, even if it is only one dollar, towards the cost of a project, that State will be involved out of necessity in the planning of that project and in the operation as well.

I think there is another significant level which States control, and that is the issuance of water right permits. Construction of projects requires us to receive a permit from the State. States have in the past put conditions on those permits and we have argued about those in the courts sometimes. However, we have been, as a policy matter, following those very closely. California is a good example.

I guess the final word I would like to mention is with respect to the future of irrigated agriculture. Comments were made that the cost-sharing legislation will lead toward the ultimate demise of irrigated agriculture. As you know, Federal water resource development projects that provide irrigation benefits are only a small portion of the total irrigated agriculture in this country. More importantly, I think that assumption is incorrect. Since June of last year, the Administration has sent out requests to initiate construction of 14 new water projects in the Bureau of Reclamation alone; we will continue to move that process forward as funds are provided.

If someone is looking for a hidden agenda, we have worked consciously to say there is none, there never has been, and there never will be. I think it is also interesting to note the approach that we have taken with this cost-sharing legislation. If you compare that to the work that was done on the development of the National Energy Program in the spring of 1977, I think you will notice a very strong difference. We have shared every draft and we have openly solicited comments. We have gone to meetings and we have changed the bill since we first circulated it.

Many of those changes, in fact, were the result of consultations we had with the various States, and I think we benefited greatly from them. We now believe that any further changes in the bill should come through the legislative process, which is an open process that involves everyone. As a result, we are now looking toward introduction of the cost-sharing bill on Friday of this week, but it may be as late as Monday. We have sponsors in both the House and the Senate, and we will urge the committees to act, as expeditiously as possible, to provide a hearing to get all the problems out on the table.

Again, I want to be perfectly honest with the Governors. This bill is not perfect. As I said, it is a complex subject. No one has ever tried it before and we recognize that. We openly want to deal with the problems that are there.

Planning Grants

If I could, Governor Teasdale, I would like to take a few minutes to run through a number of other legislative items which are currently before the Congress and I think have an impact on this group.

The most important is a bill which the Administration has submitted to increase planning grant funds from the States from $5 million to $25 million, the proposal to initiate a $25 million technical assistance grant program to the States, and to authorize the continuation of the Water Resources Council for another 2 years. As you may or may not know, the House Water and Power Subcommittee has held one markup where they decided to drop those funds from $25 million for each part of the package down to $10 million, add $1 million for administrative costs, and extend the authorization for the Water Resources Council for 1 year rather than 2.

We believe it is very important that the Administration proposals be enacted and the appropriation of funds follow. These planning funds and technical assistance funds are sorely needed by the States, and we will continue to work very hard to push for them.

Independent Project Review

There is also in Congress another proposal to initiate the independent project review function which was mentioned by the President in his message. As you will remember, this independent review function would provide an independent forum for reviewing the validity of cost and benefit calculations and the compliance of the various agency proposals with other relevant statutes and regulations.

The Executive order establishing that process clearly stated this process could not take more than 60 days. In very rare exceptions, a 30-day extension would be granted but no more. The intent here is very clear. We have had a number of projects which have ended up in the courts, embroiled for years based on the fight over whether calculations were carried out fairly or whether relevant statutes were complied with; in many occasions, we have lost. We have had to spend a great deal of time dealing with these questions and correcting them. Time in this business means money, and money is something we are finding very hard to get each year.

When we have inflation rates that lead to a 100 percent increase in the cost of a project over a 5-year period, you can see our concern that we build projects once they are authorized and the people agree they should be built. We construct them as quickly as we possibly can. We believe the independent review function is one important step in doing this.

We currently have a system which is a black box. A proposal goes to the Office of Management and Budget and may sit there for 3 weeks, 3 months, or 3 years, depending on whatever they want to do with it. Even worse, there is no publicly issued statements concerning the project when it is sent out. The independent review process would correct this problem.

Project Funding

Finally, I would just like to say a short word about full funding of water resource development projects. In this year's budget, the President set up a proposal requesting $545 million for 15 new water project starts in the Corps and the Bureau. We requested the full funding for the construction of those projects. We did so for a number of important reasons.

First, we believe that full funding requests to construct the project in the first year is a more open and honest statement of exactly how much a project will cost the taxpayer. We have started billion-dollar projects with $1 million appropriations for example. I think it is important that we openly state at the beginning exactly how much a project will cost.

Second, we believe that we can build a project faster if we have all the funds in Treasury ready for obligation. Again, the faster we can build a project the cheaper it will ultimately cost the taxpayer.

I think there has been somewhat of a communication problem between the appropriations committees and ourselves on this issue, but we hope to improve it a great deal. The House Budget Committee has supported the Administration on this, the authorizing committees do not, and we are currently working with the appropriations committees.

That kind of communication reminds me, Governor Carlin, of a story I heard in Kansas. I was out at Kansas State University. I was fascinated to hear the conversations about football here. I didn't really know you played football. I am from the West Coast, the University of Washington, which pulled off one of the greatest upsets in history two years ago.

It seems there was a traveling salesman rolling across the hills of western Kansas on a dirt road, up and down those long hills, and he saw in the distance a car approaching him. This gentleman was often referred to as the chauvinist in his office. It is a problem, I guess, with traveling salesmen.

As he came up over a hill, a car came over the top on his side of the road. As he swerved to get off the side of the road, the car went by. A young woman was driving; she leaned her head out the window and yelled, "Pig!" He was astonished and he looked at her and shook his fist. As he came over the top of the hill, right in front of him was a 300-pound pig. So, you have to be careful the way you communicate.

Other Issues

I have outlined a number of other areas where we are working very hard. The changes in Principles and Standards have been mentioned. The only thing that I would say to you is that, again, we have proposed changes. They are not published yet. We have been openly working with State groups and with the Federal agencies to put these together. They will be published, but probably not until first of June of this year. As a result, there will be ample opportunity to correct any problems that people may see in them.

The Fish and Wildlife Coordination Act regulations were mentioned. We have been trying since the first of the year to put together a package which is acceptable to the fish and wildlife agencies as well as the

development agencies, and I think, as Governor Link mentioned, this is a very sensitive issue. It is an important issue and I think we are a lot closer. These regulations will come out in draft form; they are not final. We know they are complex, we know they are sensitive, and we are going to treat them very carefully.

Two additional issues, ground water and instream flow problems, are very sensitive matters to the individual States. We feel we are making significant progress on both these issues. In the ground water area, we have published the catalog of Federal assistance available which was requested by the President. We have begun to draft procedures for integrating consideration to ground water problems in the development of Federal projects. We are publishing other catalogs of assistance and funding that is available to States and trying to identify areas where Federal-State action can work to resolve problems. As you know, ground water issues are controlled by the States, but it is a significant issue which directly affects the Federal Government.

The other area, instream flows, is again primarily a State matter, but we have identified areas in the country which we believe are problem areas. We did so after we received the advice and assistance of the individual States. We are currently working to improve the process of identification, and then we will begin the difficult process of working with the individual States to seek a legislative compromise.

We hope to maintain instream flows downstream from Federal reservoirs. As the President pointed out, this process will be done with the cooperation of the States. We believe that we worked out a good compromise in California to a very difficult issue, and we hope to continue that in other States as well.

I have been particularly pleased with the way both of these groups have carried out their tasks. These are very sensitive issues for the individual States, and both the President and the Secretary of the Interior made commitments not to intrude upon State water rights. We believe that the work of these two groups today has lived up to that commitment, and we will continue to work very hard to fulfill those commitments.

Federal Reserve Water Rights

Another area where we are making progress is Federal reserve water rights. The task force working on this problem for the first time has begun to define what the agencies think their water rights are, and we have been working on the common definition and examining the process by which we will go back and quantify those particular Federal reserve rights. I think it is important.

This is the first time that Federal agencies have actually had to sit down and do this. In the past, they have always claimed the world when you discussed this issue with them. Although when we actually look at it, in many cases, the reserve rights that may be brought forward may be significantly less. This group will continue its process as well as looking at a number of other factors such as recommending an Executive order to direct all agencies to quantify their water rights in a specific period of time — the possibility of directing Federal agencies not to assert new reserved rights after a certain period of time on existing reservations.

Again, the intent of these measures is to force the Federal agencies into the process of sitting down and deciding what it is they claim rather than talking about it. I think, as Governor Judge mentioned, it is very difficult in a Federal establishment because you have significant differences of opinion between individual agencies and the Justice Department and others. We believe that the process set out in the Federal reserve water rights area is a particularly important one. We believe, of course, that it is not an issue that will be resolved quickly, but it is one that we believe can be resolved in time. The work that we have done over the last couple of years has laid the foundation for resolving some of these problems.

I would like to apologize for taking so much time, Governor Teasdale, because I know that there may be questions or comments. I'd just like you to know that I believe it is important we are making significant progress in implementing many issues which the President directed us to do. I think it has been an open process. We have not corrected every problem that everyone pointed out to us, but I believe we have given everyone a fair hearing in this process. We are moving ahead, and we will continue to move ahead; I am very thankful for this opportunity to meet and discuss these problems with the Governors. Thank you, Governor Teasdale.

Discussion

Governor Teasdale:

We appreciate your coming and stating your position with regard to the Federal Government and the President.

Governor Janklow:

Dan, I have several questions I would like to ask you. First, what assurances are in the proposed plan or the proposed legislation to guarantee that the rules of the game won't again be changed 5 to 10 years down the road, after the States have put in their requisite

percentage amount? After the States put in their dollars, what guarantee do they have that they are not going to be held for ransom or blackmail, that they once again must come up with some funds?

The second area that I wish you would respond to is, what could possibly be the reason the Administration is coming up with new water projects to the tune of about $500 million for which they are requesting full funding when there is a $35 billion backlog that's unfunded? Have they wiped them all out? Are they ignoring those and moving forward to new things?

Beard:

The $35 billion backlog includes projects that are under construction now or those that we haven't initiated construction on. What we try to do is go back and get the best, the highest priority projects that are in that authorized but unfunded backlog and work into that as fast as we can.

Governor Janklow

Governor Janklow:

Okay, but you used the figure $500 million when you talked about new projects. Are any of those projects included in the $35 billion backlog?

Beard:

Yes. Back to the first question, I guess the short answer is, "none." Now the long answer. We struggled very hard with the question of how to grandfather the existing projects in the system with the new cost-sharing rules. We made a difficult decision, which was basically not to apply rules to any project that had been authorized in the past.

The feeling was that an agreement had been reached, the Congress had acted, and there was no way in which we could go back and decide which of the authorized projects should have a change in the cost-sharing rules. So, as a result, the legislation will only apply to projects authorized in the future.

Governor Janklow:

If I may interupt you for one second, because that is the point I was hoping you would get to. The President has indicated that if his legislation passes the priority he establishes at the Executive level for funding will be based upon the participation of the States, i.e., the amount of financial interest shown by the States. How do you then make the judgment which of those old projects isn't going to participate, and where do they balance up with respect to the new projects where there will be participation? Who is going to have the top priority, and how do you establish it?

Beard:

If I could explain the question for some of those who may not know what you are referring to. The question is, What do you do about those in the backlog now? Our statement has been that those projects in the backlog that haven't been funded in which a State voluntarily comes forward with State contributions toward cost-sharing would receive priority consideration by the Administration in the funding of new projects.

Governor Janklow:

Nothing could be more unfair because some of these States may come up with their matched share of money since they have been the beneficiary of water projects in the past that are now completed and are creating additional revenues which give them the funds necessary to come up with their match. For those of us that got left behind, it is an unfair situation.

Beard:

Well, I guess I don't agree with the logic that construction of past projects may have led to the revenues that generated contributions towards cost-sharing.

Governor Janklow:

If they meet the cost-benefit ratio, they do.

Beard:

Could you explain the question a little bit?

Governor Janklow:

Is it correct that you have to meet the cost-benefit ratio of a dollar for dollar — that the benefit has to exceed the cost?

Beard:

Yes, in most instances, yes

Governor Janklow:

If that is the case, then there's increased economical enhancement to any State where you have had a complete water project, assuming that your surveys or studies are accurate, which you cannot always assume with the Federal Government But assume that they are. Would that be the case?

Beard:

Well, the benefit-cost ratio for an individual project would be based on the merits of that project to the area that is affected, yes

Governor Judge:

What do you do with a multistate project where the project is in one State but the benefits occur in terms of flood control, irrigation, and hydroelectric generation downstream. Do those States have to kick in or does one State have to pay for their share too?

Beard:

What we have done in the bill is provide that the State or States in which the project is located will act as a broker for obtaining participation in the financial contributions of the other States that benefit from the project So, in the case of a project in Wyoming that would provide power to Montana, there would be a cooperative relationship between the States.

I want to be honest with you. I think you put your finger on one of the most difficult and complex issues within the whole area of cost-sharing, and that is the question of multi-State projects We believe that the process we set forward in the legislation is the best that we can do, but there are a number of issues related to this that are complex and very difficult. One of the things that we looking forward to the hearings to provide us with is an opportunity to discuss openly the question of how to deal with a multi-State project and try to get the best answer we can to resolve that question. Thank you very much again.

Compatible Flood Plain Management

It was moved by Governor Robert Ray, Iowa, seconded by Governor Charles Thone, Nebraska, and adopted unanimously:

Whereas, The Missouri River forms a shared State boundary for 444 miles along the States of South Dakota, Nebraska, Iowa, Missouri, and Kansas from Gavins Point Dam near Yankton, South Dakota, to the confluence of the Kansas and Missouri Rivers in Kansas City, Missouri-Kansas; and

Whereas, The demand for land on the Missouri River Flood Plain for power plant sites, industrial complexes, intensified agriculture, transportation facilities, residential and commercial areas, levees, and other types of development is increasing: and

Whereas, A compatible and uniform flood plain management program among the States sharing a common border is required to avoid the undesirable short and long-term economic, political, environmental, and social impacts of this valuable asset; and

Whereas, We as Governors of the affected States support the concept of working together to effectuate wise, orderly, and sound flood plain management; and

Whereas, The Missouri River Basin Commission has before it for consideration: (1) a proposed special study entitled "Missouri River Flood Plain Management Study" and (2) a proposed Flood Plain Management Policy Statement for the main stem Missouri River from Sioux City, Iowa, to the mouth at St. Louis, Missouri; therefore be it

Resolved, That the Governors of the Missouri River Basin States, in conference convened in Kansas City, Missouri, May 1, 1979, do hereby support the Missouri River Basin Commission in its collective efforts to advance and evolve policy guidelines and other resource materials for compatible and uniform flood plain management among the basin States; and be it further

Resolved, That we support the proposed Missouri River Flood Plain Management Special Study and recommend that the U.S. Water Resources Council, the Office of Management and Budget, the President, and the U.S. Congress approve funding for this Missouri River Basin Commission No. 1 priority special study to begin in fiscal year 1981; and be it further

Resolved, That we endorse the concepts as set forth in the Flood Plain Management Policy Statement and encourage local interests in the

basin to participate in the common goal of developing a flood plain management program which recognizes that certain constraints and limitations are necessary for sound and orderly flood plain management; and be it further

Resolved, That we will direct our respective State governments to initiate and develop interstate agreements and legislation which provide compatible flood plain management programs between the basin States.

High Plains Ogallala Aquifer and Water Importation Studies

It was moved by Governor John Carlin, Kansas, seconded by Governor Charles Thone, Nebraska, and adopted unanimously:

Whereas, The High Plains Ogallala Aquifer Study is of regional, basin, and national interest; and

Whereas, The High Plains Study directly affects five Missouri River Basin Commission States and indirectly concerns four of the remaining Missouri River Basin Commission States; and

Whereas, The Corps of Engineers in accordance with directives of P.L. 94-587, Section 193, and in cooperation with the High Plains Council, has initiated studies of water importation; and

Whereas, The High Plains neighboring and regional, Federal/State cooperating commissions have expressed interest and concern with respect to the importation studies; therefore be it

Resolved, That the Governors of the Missouri River Basin States invite and request the High Plains Council to present a report on the importation studies to the next scheduled Governors' Conference.

Missouri River Basin Hydrology Study

It was moved by Governor Joseph Teasdale, Missouri, seconded by Governor John Carlin, Kansas, and adopted unanimously:

Whereas, The Governors, at their 2nd Annual Missouri River Basin Governors' Conference in Omaha, Nebraska, May 3-5, 1977, unanimously adopted a resolution petitioning the Federal Government through the Missouri River Basin Commission to develop within the several States a cooperative water data system adequate for assessing the current and future water uses within the basin; and

Whereas, The Missouri River Basin Commission has developed a joint Federal-State proposal to study entitled "Missouri River Basin Hydrology Study" that addresses this need; and

Whereas, The Governors, at their 3rd Annual Missouri River Basin Governors' Conference in Great Falls, Montana, May 23-24, 1978, unanimously adopted a resolution supporting the Commission's proposed study and recommending its funding by the President and the basin States; and

Whereas, The President has recommended to the Congress of the United States in his budget for fiscal year 1980 that funding be provided for the proposed study; therefore be it

Resolved, That the Governors of the Missouri River Basin States, in conference convened in Kansas City, Missouri, May 1, 1979, do hereby support the funding of this proposed study and recommend that the Congress of the United States appropriate funds for this special study to begin in fiscal year 1980.

Proposed Cost-Sharing Legislation

It was moved by Governor Thomas Judge, Montana, seconded by Governor William Janklow, South Dakota, and adopted by majority vote with Governor Joseph Teasdale, Missouri, abstaining:

Whereas, President Carter, in his June 6, 1978, Water Resources Policy Reform Message, announced his intention to seek direct financial assistance from the States to share in the costs of Federal water projects; and

Whereas, The President, on July 12, 1978, directed Chairman Andrus of the Water Resources Council to prepare with respect to programs of the Bureau of Reclamation, Corps of Engineers, and TVA, whatever rules, procedures, guidelines, or legislation necessary to accomplish the cost-sharing requirements for projects not yet authorized by law; and

Whereas, A December 15, 1978, draft of the proposed legislation entitled "The Federal Water Projects Financing, Cost and Revenue Sharing Act of 1978" has been distributed to the States for review; and

Whereas, This proposed legislation would have widespread and adverse impacts on the Missouri River Basin States; and

Whereas, The States and other non-Federal entities have demonstrated significant cost sharing in past water development projects and will continue to do so in the future; and

Whereas, The current proposal expresses an intention that the States have increased involvement in all phases of water projects, yet, the proposal contains practically no provision for State participation in the planning, construction, and operation of water projects; and

Whereas, The Missouri River Basin States are willing to review current cost-sharing requirements and to improve upon those requirements when sensible and prudent reasons are identified; and

Whereas, The States of the Missouri River Basin can find little support or rationale for the cost-sharing legislation as proposed; therefore be it

Resolved, That the Governors of the Missouri River Basin States, in conference convened in Kansas City, Missouri, May 1, 1979, do hereby oppose the proposed cost-sharing legislation draft dated December 15, 1978; and be it further

Resolved, That this opposition be communicated to the congressional delegations of Missouri River Basin States and to the committees of Congress with appropriate jurisdiction.

U.S. Department of Agriculture Programs

It was moved by Governor Thomas Judge, Montana, seconded by Governor John Carlin, Kansas, and adopted unanimously:

Whereas, The President's budget for fiscal year 1980 proposes substantial reductions for U.S. Department of Agriculture (USDA) programs which are of critical concern to the Missouri River Basin States; and

Whereas, The USDA has indicated an intention to phase out the Resource Conservation and Development (RC&D) and the Snow Survey Programs of the Soil Conservation Service; and

Whereas, The Missouri River Basin States are willing to review the financial requirements and to offer improvements upon those requirements when sensible and prudent reasons are identified; and

Whereas, The RC&D Program which would be phased out by fiscal year 1981, serves both rural and urban areas on a multicounty basis and has been instrumental in developing water conservation projects throughout the Missouri River Basin; and

Whereas, The Snow Survey Program, conducted in the western States, including three of the Missouri River Basin States, provides predictions of spring runoff which are vitally necessary to the operation, regulation, and management of the streamflows throughout the Missouri River Basin for such purposes as irrigation, public and private power production, flood control, and navigation; and

Whereas, The USDA has announced its intention to transfer the Snow Survey Program to non-Federal operation by fiscal year 1983, suggesting that non-Federal operation might be conducted by those States having snow surveys, without recognizing that many of those States have neither the technical nor financial capabilities to assume that responsibility; and

Whereas, The proposed budget for fiscal year 1980 has the potential to eliminate some 1,500 positions in the Soil Conservation Service, thereby continuing the decline in the SCS ability to provide land and water conservation technical assistance to the States and conservation districts which cooperate and share the costs of these programs; therefore be it

Resolved, That the Governors of the Missouri River Basin States, in conference convened in Kansas City, Missouri, May 1, 1979, do hereby support the continuation of these critical conservation programs within the U.S. Department of Agriculture at funding levels recommended by the National Association o Conservation Districts at its 33rd Annual Convention on February 11-14, 1979, in Washington, D.C.; and be it further

Resolved, That the congressional delegations of the member States and appropriate Committees of Congress be advised of this support.

Proposed Resolution on Legislation Amending The Water Resources Planning of 1965 (P.L. 89-80)

It was moved by Governor Arthur Link, North Dakota, seconded by Governor William Janklow, South Dakota, and adopted unanimously:

Whereas, President Carter, in his June 6, 1978, Water Resources Policy Reform Message, announced his intention to seek an increase in the funding of State water planning administered by the Water Resources Council pursuant to title III of the Water Resources Planning Act (P.L. 89-80); and

Whereas, The Congress is currently considering these proposals, H.R. 2610 in the House of Representatives and S.480 and S.833 in the Senate; and

Whereas, The Governors of the Missouri River Basin States recognize the need for Federal financial assistance in water management planning and water conservation technical assistance; however, the Governors of the Missouri River Basin States also recognize the need to protect the viability and independence of State water planning and to preclude the imposition of Federal criteria, procedures, and regulations on those programs; therefore be it

Resolved, That the Governors of the Missouri River Basin States, in conference convened in Kansas City, Missouri, May 1, 1979, support the level of appropriation recommended by the Administration for increased Federal financial assistance in water management planning and water conservation technical assistance, provided the legislation contains sufficient provisions to ensure State primacy of water management; and be it further

Resolved, That the position hereby adopted by the Governors of the Missouri River Basin States be communicated to the congressional delegations of the member States and to the committees of the Congress with appropriate jurisdiction.

Missouri River Basin Governors' Conference Staff Assistance

It was moved by Governor William Janklow, South Dakota, seconded by Governor John Carlin, Kansas, and adopted unanimously:

That the staff of the Missouri River Basin Commission assist the Missouri River Basin Governors' Conference for the purpose of maintaining an official record of MRBGC actions and proceedings of annual meetings; retaining MRBGC funds in a separate banking account until such time as they are called upon by the basin Governors or their representatives; and, under the guidance of the State-elected Vice Chairman of the Missouri River Basin Commission providing staff assistance to the host Chairman of annual MRBGC meetings to assure conference program continuity and coordination among the basin States.

1980 Missouri River Basin Governors' Conference

It was moved by Governor Arthur Link, North Dakota, seconded by Governor William Janklow, South Dakota, and adopted unanimously:

That the 1980 Missouri River Basin Governors' Conference be held in the State of North Dakota.

MISSOURI RIVER BASIN GOVERNORS' CONFERENCE AND MISSOURI RIVER BASIN COMMISSION JOINT LUNCHEON

Introduction by Governor Joseph Teasdale Host and Conference Chairman

I was happy that Mr. Costle was kind enough to meet with the Governors this morning in private. He is a distinquished speaker for our meeting. As you probably know, he heads one of the most controversial of all Federal agencies. His responsibilities as Administrator of the U.S. Environmental Protection Agency are formidable: leading the cleanup of the Nation's water and air; regulating everything from agricultural pesticides to toxic chemicals; and directing the Federal and State efforts at solid waste management, just to name a few.

Governor Teasdale

To carry out the far-reaching Federal legislative authority of EPA, he supervises more than 2,400 employees and an annual budget of $4.8 billion.

Douglas M. Costle is only the third Administrator EPA has ever had, but he was very familiar with the goals and complex challenges of that agency even before he was nominated by President Carter in 1977. This is not too surprising. While Mr. Costle was senior staff associate on executive reorganization in 1970, he headed the study which recommended creation of the Environmental Protection Agency.

Now, in addition to his duties at the EPA, he chairs the Regulatory Council created by President Carter to combat inflationary over regulation of business, and — most significant prestige for his agency — he regularly attends the President's cabinet meetings.

Before Doug's Presidential appointment, he had wide experience in State government, in other Federal positions, and in private law practice. His accomplishments include service as Assistant Director for Natural Resources and Commerce, National Budget Office; Commissioner of Connecticut's Department of Environmental Protection; a trial attorney for the Civil Rights Division in the U.S. Department of Justice, and Deputy Director of a Department of Commerce project to reduce unemployment in Oakland, California, through capital investment.

He is married and has two children, Douglas and Elizabeth.

It is my pleasure to welcome Mr. Douglas Costle, Administrator of the U.S. Environmental Protection Agency, everyone's favorite at EPA.

Address by Douglas M. Costle, Administrator U.S. Environmental Protection Agency

Thank you, Governor. Your introduction brought back to my mind, particularly the part about EPA being controversial, my own confirmation process. As is customary, once you are nominated, you pay courtesy visits on all of the Senators who sit on your confirmation committee. It is an opportunity for them to ask you hard questions about what you intend to do, to get to know you, and to tell you about the problems they have with the agency. It usually turns out to be a very valuable round of visits.

I was confirmed by the Senate Environment and Public Works Committee. It is a fairly large committee,

and I got around to just about the last or next to last Senator before the confirmation hearings. He was an elderly gentlemen. I arrived in his office late one afternoon. It was one of those early spring afternoons in Washington where it was a little warm and stuffy inside the building because they were still running the building as if it were winter, and yet it had started to turn to spring outside, so you had that suffocating feeling.

It was late in the day, and, as I said, he was an elderly gentleman. I walked into his office and his desk was absolutely clear of paper. He had his glasses down on his nose, he was sitting back in his chair, and he looked at me as I came in.

As I sat down, he pulled a copy of my resume out of his desk drawer. He said, "Young man, what makes you think you are qualified to be Administrator of EPA?" I thought, "Oh boy, 4:30 in the afternoon and here we go." So I went into an earnest description of my prior experience which included having headed the task force that had recommended 8 years ago that EPA be established. When I got to that part of the resume, he very slowly raised his hand to cut me off and he said, "I understand. He who packs the chute, jumps."

We talked for a couple of minutes more and he very slowly raised his hand again signaling that the interview was over. As I started out the door and had my hand on the door knob, he looked up and said somewhat sleepily, "Young man, I like you. Don't forget to pull the cord."

I might add, Joe, that when a friend of mine in Connecticut heard of my nomination, he said, "I can't think of a faster way to ruin a promising public service career.'

According to Greek myth, the most skilled craftsman of the ancient world was the architect and sculptor Daedalus. Among other achievements, Daedalus is credited with having built the labyrinth for King Minos on the Island of Crete.

Sometime after that, however, Daedalus fell out of favor with King Minos, and was forced to devise a means of escape for himself and his son, Icarus. This he did by fashioning wings out of feathers and wax.

The wings worked perfectly — but human judgment did not. In his pride at being able to soar through the air, Icarus flew too close to the sun — and the wax fastening the wings to his body melted He plunged to his death in the sea

Perhaps if there had been a Consumer Product Safety Commission at the time, or a Mediterranean Aviation Administration, this tragedy might have been averted Icarus would have been required to make several training flights before launching himself over water, and the wings themselves might have been stamped with the label reading: "CAUTION: EXCESSIVE HEAT MAY ABRUPTLY TERMINATE YOUR FLIGHT."

Neither of those regulatory mechanisms existed at that time, of course, so all we are left with is an interesting tale. But so often these ancient myths — like Aesop's Fables or the parables of the New Testament — clothe a provocative truth or profound question in story form. It is intriguing to note how many of those stories, old and new, ask the same question as posed by the story of Daedalus and his son.

Technological Pollution

What is the price we pay for knowledge? By taking a bite out of the apple, Adam could suddenly distinguish between good and evil; was that gain worth the loss of the Garden of Eden? Prometheus stole fire, the beginning of civilization, from Zeus and brought it to mankind; was that gift worth the plagues from Pandora's Box that Zeus sent as punishment? The technology created by Daedalus killed his son; was it worth it? Dr. Faustus traded his soul for a command of science and the companionship of Helen of Troy — giving us not only an allegory, but an adjective: A few years back, Dr. Alvin Weinberg, then Director of the Oak Ridge National Laboratory, referred to man's harnessing of nuclear power as "a Faustean bargain. . . ."

Thus, this theme of man paying a heavy price for knowledge echoes down through the ages. It is echoing today, in the wake of our near-miss with Three Mile Island.

That incident, not so parenthetically, reminds us in these federalized days that the State is the basic component of our Union, and that Governors still bear the basic responsibility of their citizens' welfare. We saw Governor Thornburgh of Pennsylvania agonize over the question of ordering an evacuation — a responsibility which, despite the heavy involvement of Federal agencies in controlling a damaged reactor, remained his. We also saw Governor Riley of South Carolina decide that his State — which has been accepting the vast majority of low-level nuclear waste generated in the United States — would not serve as a national dumping ground while the rest of us temporize in seeking a solution to the long-term waste disposal.

Three Mile Island is still fresh in our minds, and so our questions about man's control of the technology he has created tend to emphasize nuclear problems. In

point of fact, however, the last few years have surfaced questions about an extraordinary variety of our technologies. Today's headlines, in this era of instantaneous communication, can lead us to forget yesterday's and, perhaps, distract us from noting a pattern that apparently isolated events suggest.

Yesterday's headline, for example, was Love Canal — which has, in only a few months, become a generic term for a host of chemical time-bombs ticking their way toward sudden trouble in tempo with an unknown clock. The day before that we read about the Amoco Cadiz breaking up off the coast of Brittany and dumping on its biologically rich shores 220,000 tons of oil — 12 times as much oil as could be carried by the largest tanker in existence in 1945. Before that we had Kepone, and before that we had thousands of cattle poisoned by a toxic chemical mistakenly mixed in their feed.

Futhermore, these single, attention-getting events unfold against a background of continuing dangers that rarely generate news because they are "happening" 365 days a year — not only in the United States, but across the globe:

- Scientists in most of the industrialized First World nations, as well as their colleagues in the Soviet Union, have begun to monitor "acid rains" — dilute sulfuric and nitric acid falling hundreds of miles away from the factories that generated the emissions. It's been demonstrated that these rains lower soil productivity and reduce timber production.

- Earlier this month, the United States imposed a ban on interstate shipment of convenience products that use chlorofluorocarbons as propellants; it is believed that chlorofluorocarbons can rise into the atmosphere, decompose under the influence of sunlight, and erode the ozone that protects human, animals, and crops from ultraviolet radiation. Sweden will start phasing out chlorofluorocarbons this June. Canada is developing regulations on them, and the Netherlands requires warming labels.

- And while scientists try to analyze the possible consequences of a carbon dioxide build-up in the atmosphere — such as a disastrous rise in global temperatures — all of us, including the Third World nations, increase our burning of fossil fuels.

By this time, you may be wondering whose bright idea it was to invite Costle here, with this cheery synopsis of the environmental scene. My message so far has been gloomy — but my thesis is not necessarily so.

Costle

My thesis is that man's technology, coupled with his numbers on the planet, have brought us to a genuine turning-point in our three-million-year history. That turning-point has already begun to make some differences in the way we live, and will unquestionably make much more drastic changes in the future. Finally, however, the necessity for those changes need not return us to the Dark Ages of human comfort or spirit. On the contrary, it can provide a new direction for human innovation. Instead of being intimidated or diminshed by our growing sense of the limits on human activities, we can learn to use that sense as an intellectual stimulus and resource.

Let me pause here and emphasize that technology — wasteful as it often is — has given us social and personal benefits far too numerous and too obvious to mention. Further, problems with technology are now new; 19th century history is an unending chronicle of industrial and maritime disasters. . . not to mention the epidemic diseases which our ancestors accepted as inevitable. And as Thomas Hobbes pointed out two centuries earlier, the life of man in a state of nature is not a pastoral dream; it is "nasty, brutish, and short," characterized by "continual fear and danger of violent death.'

Growth Limits

What is new about the problems of our technologies is the potential they pose for massive damage and the fact that so many technological problems — from nuclear waste to energy depletion — are suddenly converging on us at the same time. It is this combination of technological scale and technological convergence — both of them magnified by population increase — that compose the essence, I think, of a turning point in man's history. Simply expressed, we have come within sight of the limits of our planet's capacity to sustain past rates of growth and human demand on finite resources.

I will not try to defend that statement. It is obvious with respect to some resources, such as oil . . . and less obvious but equally true with other resources such as water. In any case, the "limits to growth" argument has been propounded by wiser people than I; the debate tends to be not so much about the fact of limits to growth, as about the timing: when will it arrive?

Rather than offer my own guess, I would prefer to discuss some of the implications that a limit on growth holds for us. Equally important, I would like to discuss some implications that it does not have.

For one thing, the term "limits on growth" refers to only certain kinds of growth: population growth for one, growth in consumption of finite, physical resources for another.

It need not refer to limits on economic growth. We have become so accustomed to equating growth in our economy with growth in consumption that we assume one cannot continue without the other. But to choose a homely example, if a furniture manufacturer can figure out how to carve five chairs out of a tree when he used to get four, he will realize a 25 percent gain in output with no increase in input . . . none, that is, except for brains.

Lest this be considered a fanciful, unattainable prospect, let me mention how a sense of limits has already stimulated innovation and economic growth in the environmental control field.

Broadly speaking, a manufacturer has two ways of complying with anti-pollution laws: He can either collect his garbage in a big pail when it pours out the end of the factory pipe; or he can improve what goes on inside the factory, so that his process generates less garbage to begin with. Either strategy costs money . . . but the second, which requires ingenuity as well as money, can pay dividends.

Here are some examples, cited by Dick Hoard, Vice President of Ecodyne, a pollution-control firm, in the January issue of EPA's magazine:

- An $8 million water treatment system installed by the Great Lakes Paper Company reduced overall plant operating costs by $4 million a year; in three years, therefore, the system will not only have paid for itself, but will have started producing profits.

- A refuse plant on Boston's North Shore burns 438,000 tons of garbage a year, providing local industry with steam equal in energy value to 27 million gallons of fuel oil.

- Air burners installed at a Florida Power Corporation generating plant to reduce particulate emissions not only comply with clean air standards, but save the company 4,000 barrels of oil a year.

- Solid waste incinerators at the John Deere works in Dubuque burn waste to generate steam heat for the factory, saving about $1,175 a day in waste disposal and fuel costs.

- By redesigning manufacturing processes, the 3M Company in Minneapolis has cut the equivalent of 73,000 tons of air pollutants and 500 million gallons of wastewater annually, and saved about $11 million in actual or deferred costs.

None of these innovations originated spontaneously; they were triggered by regulation — a negative incentive of imposed controls backed up by fines for failure to comply. Nevertheless, once these companies looked at their regulatory problems in a fresh light, they all made money by their creativity. As one glass manufacturer testified after realizing a 10-percent savings in energy costs and boosting production to an all-time high, "If EPA hadn't put the squeeze on us, none of this would have happened.'

The proposition I want to advance is this: If the negative incentive of government compulsion — some Federal agency putting the squeeze on — could stimulate so much creativity, so much innovation, could not positive incentive — the unforced perception of possible gain — stimulate several times more?

I will leave the answer open except to observe that if free men and women cannot learn to see the carrots dangling in front of their own noses, but need to be clubbed by a government stick before they act, we are in much worse shape than even Mobil Oil Company thinks we are.

The fact, I think, is that we have not lost our capacity to invent; rather, we cling to the ghosts of past inventions, failing to recognize that we live in a genuinely new age — one that requires not merely improvements on familiar technologies, but new technologies entirely.

Technological Rewards

Some time after the achievement of the first successful chain reaction in an atomic pile at the University of Chicago, Albert Einstein remarked, "Everything has changed — except the way we think."

Man's need to respect the limits of his globe does not necessarily point us down a gloomy road to a cold, joyless existence. On the contrary, it invites us to change the way we think. Like all our familiar resources — timber, land, fossil fuels, our air, water, and soil — so the perception of physical limit can itself be a resource . . . an intellectual resource that points our technology in a new direction: toward a fresh, infinitely more creative mode of invention that keeps human demands in balance with the earth's supply.

The outlines of some of those technologies are already clear to us — and so are the carrots, the rewards, the positive incentives:

- A fortune awaits the first person or the first company to produce a cheap photovoltaic cell, capable of transforming sunlight directly into electricity.

- A fortune awaits those who — employing the concept of scarcity as an intellectual resource — figure out how to make the recycling of household waste economically feasible.

- Conservation is commonly viewed as a process of doing without; enormous awards await those who perceive that conservation means making the same amount of resources produce more and who can convert that perception into industrial specifics that will be applauded not only by the Sierra Club, but by Dow-Jones as well.

The point is that man's new relationship to his technology does not foreclose the opportunity for invention; rather it opens up opportunities for a new type of invention.

Technology has lifted us, like Icarus, into the middle air — proud of our flight, exulting in our power, and tempted to test that power by flying toward the sun. Seduced by the illusion of our own omnipotence, we could fly too close . . . and, perhaps, fall to our end.

But, while we ponder the cautionary example of Icarus, we should also remember Daedalus. It was he, after all, who invented the wings in the first place. He knew that invention requires courage — but he also knew that courage is not the same thing as bravado, that risk is not the same thing as foolishness. By blending imagination and daring with a sense of limits, Daedalus concluded his flight safely.

And so, if we scale our new technologies to the perception of limits, can we. Resource constraints need not ground us; only the intellectual ceilings we place on ourselves can do that. A whole sky — unsullied, unexplored, and infinitely promising — waits for us. All we need to take possession of this fresh freedom and escape from our insular bondage in the technological servitude of the past is some new wings.

Governor, I want to thank you for the opportunity to meet with you, and it's a pleasure to have been here. Thank you.

Discussion

Governor Teasdale:

Doug, thank you very much again. I know the Governors appreciate your coming.

Governor Teasdale

Governors find frequent forums to point out how right their cause may be and how wrong the the policies of the Federal bureaucrats may be. Sometimes when we mention bureaucrats, State or Federal, it is stated as having a negative connotation. It is refreshing to see that you, Doug, certainly don't sound like a bureaucrat. You are a thinker, and your thesis is very well thought out and very logical. This is encouraging to me as a Governor, since the people in Washington are not pictured as thinkers but as kind of robots perhaps.

You are warm and creative. I know that because I was at dinner with you last night and I had a chance to meet with you. I do appreciate your thesis and the very well thought out speech.

I have one question I think is pertinent. I mentioned this morning my concern with the nuclear question of Three Mile Island, and I know that this question is very much on the public's mind today. I have heard repeatedly on the news and have read about the different standards with regard to radiological emissions from nuclear power plants.

I heard it said that the Nuclear Regulatory Commission has one standard and that EPA has another standard for radiological emissions. I heard it most recently from a team of experts who were hired by me. They made the same point. Is the question pertinent and correctly put as to which standard will be enforced?

Administrator Costle:

Thank you, Joe. EPA has some legislative authority to set what are called radiological guidelines. They are not standards in the sense that I can set a number and say that a nuclear power plant shall not be allowed to, on the premises, generate any more radioactivity than "x." Rather, and the law is ambiguous, we set guidelines of what we think is safe for the population to be exposed to. The Nuclear Regulatory Commission takes those guidelines and converts them to a set of numbers that represent emission limits on individual power plants.

That awkward separation of power is the result of compromies on Capitol Hill when EPA was created and the old Atomic Energy Commission still existed. The guidelines for nuclear power plants and public exposure, that is if you are at the plant line, when I took office in 1977 were 500 millirems a year. We changed that, and the number effective this December will be 25 millirems a year.

That means if you are a hypothetical individual standing on the plant boundary 24 hours a day, 365 days a year, you should not, under our guidance, be exposed to anything more than an accumulative dose of 25 millirems, which is less than the rough equivalent of a single X-ray.

Why did we move that standard down? I think this is very important to understand. It is not because we have any health evidence which says that 25 as opposed to the 500 is some sort of magic number.

The basic facts are that in spite of all of the studies that have been done following the World War II, all the radiation health effects analyses and reviews that have been done, the scientists still cannot say that there is such a thing as a safe level of exposure for all people. So then, in fact, the policy of the Federal Government, not just EPA, but others as well, has been in light of that uncertainity about whether there is or is not a threshhold.

In the case of nuclear power, the goal has been to drive those numbers as low as technology will allow you to do. We concluded that nuclear power plants designed today could in fact provide that margin at the plant boundary, and we set the number at 25.

About Three Mile Island, we were lucky. There was a serious incident. It is not clear yet, and won't be until the full post-mortem has been performed, exactly where the fault lies. Is it with the technology; is it with the failure of the system; is it improper design; is it human error; or is it some combination of those things?

We now have a Presidential Commission. Governor Babbitt of Arizona sits on that Commission along with John Kennedy, who is the President of Dartmouth, and Russell Peterson, who is the former Chairman of the Office of Technology Assessment on Capitol Hill and the former chairman of the Council of Environmental Quality, plus some ordinary citizens — one lady in particular who lives in Harrisburg near Three Mile Island.

They have just begun their investigation, and I think a number of serious questions will arise. First and foremost, why was it nearly two days before the full gravity of the situation was understood?

Governor Thone and Costle

It appears, and again this is almost secondhand knowledge, that the most serious period may have been in the very first day when we think now, and we won't know again until we have gone back and analyzed the data, charts, the readouts, and the meters, that a proportion of the reacter core was probably uncovered for as long as 5 to 7 hours.

When they took samples of the core's cooling fluids, they did not find evidence of a melt down, but they clearly found evidence that suggested the cladding around the uranium fuel rods had been fractured, and some fission by-products were escaping into the cooling water. We also have some evidence now that there was indeed a hydrogen fire inside the containment vessel building, and it had the accusative effect, which was well within the tolerance of the building, apparently, but did impregnate the walls of that building with a high degree of radioactivity.

Within a matter of hours, the radiological monitoring network around that plant, off the boundary and also on plant property, was augmented dramatically and extensively. But even then, it was probably 48 hours before a fully instrumented, emergency-type monitoring surveillance net was in place.

We are lucky in the sense that as best we can judge from all the instrumemts' readings and all of the disintegrators and all of the anaylsis of the different kinds of radioactive neutrons released that there were no releases of the longer lived fission products like strontium or radioactive idodine, the former being bone-seeking and the latter being essentially thyroid-seeking.

If you ingest it, it stays. It seeks a specific spot in the body and continues to pulse as long as its hot. Those products can stay hot for a long time. What was released were are called the noble gases, xenon primarily, which is very short lived.

If you were to find some in this room, and if you would breathe it in and out, it wouldn't stay. Your exposure is limited to that one inhalation and exhalation. If there were a person who were subjected to the maximum exposure over the two-week period, that maximum exposure was probably in the range of 70 to 80 millirems. That is roughly the equivalent of two X-rays.

In order to put that in some perspective, natural background is probably in the range of 170. If you live in Denver, it is probably closer to 200 because you are elevated and you are closer to the Sun; and the most natural background, frankly, is a result of exposure to the Sun's rays.

There is some allowance in the background calculation for occasional therapeutic exposure like an X-ray. So, as they say in terms of what actually was released, we were lucky. What is frightening is that the potential could have been much bigger; we need to sort that out.

Governors Thone, Ray, and Judge

My own sense is that we should be asking very hard questions, we should be skeptical, and we should demand answers. But, it is probably premature to pass judgment until we have had an opportunity to do a complete post-mortem.

There is no such thing as a certain threshhold for exposure. Exposures are well below background and normal circumstances. We have had a serious incident that fortunately did not result in a massive release.

But, that set of premises does not lead you to a firm conclusion about how adequately we are, in fact, protecting ourselves from the possibility of a future incident. I should tell you they had a lot more questions this morning.

Conference Wrapup

Governor Teasdale:

This Conference has been, I think, a very promising and a substantial meeting. I am very happy with it. I want to thank Douglas Costle and Daniel Beard for coming and thank both gentlemen for taking the heat and for speaking and representing the President. I certainly want to thank Chairman Hall and all the members of the Commission who worked so hard to organize this Conference.

It is good, as Governor Link pointed out earlier, that Governors at least once a year come together to discuss and express themselves on the pertinent issues. I think that happened this morning. We scratched the surface perhaps, but at least we did have those discussions, and resolutions which are very pertinent were presented, giving the States through their Governors a chance to express themselves on matters affecting the river basin commission and the Missouri River as it affects our States.

We have continued to have a good relationship and I think it is noticeable that the Governors of the basin are, on an annual basis, showing more and more interest in this river basin commission, which means we are recognizing on behalf of our people that the issues surrounding the Missouri River and the basin are more and more important. Water rights are affecting the lives of our people more and more, and I am glad that the Governors again demonstrated that recognition by coming. To each of the Governors — my sincere thanks for coming to make the meeting what it was; substantial because of your presence.

I look forward very much to going to North Dakota next year, and Governor Link has some futher comments in that regard.

Governor Link:

Thank you, Host Governor Teasdale, fellow Governors, and Administrator Costle, for that very enlightening presentation on the environment. I am sure it is reassuring to all of us to know that we have this kind of concern, this kind of concept, this kind of optimism, this kind of projection of how we handle what seem at times to be very difficult problems.

There is a real fringe benefit that I didn't realize in the fact that North Dakota will be the host State for the Conference next year. I would like to refer you to the brochure that is around on the tables. It is this very nice brochure on the Missouri River Basin Commission.

Yesterday afternoon in visiting with a participant of this Conference from one of the lower States and talking about the floods that we are having in North Dakota, and after the discussion I was asked where the crest is now. I said, "It is on the border; it is on its way to Canada." That person heaved a sigh of relief and said, "Oh, how lucky! I was wondering when it was going to come down the Missouri."

Well, look at your brochure. The Red River is the boundary between the eastern North Dakota and western Minnesota. It happens to be a river that runs in the wrong direction — it runs north, and that is part of the difficulty of it.

So, we certainly want you all to come to North Dakota and find out where the water really does come from; that it comes from the Missouri. A good deal of water comes this way. That is by way of geographic orientation.

Mr. Chairman, I shall ask my people, both in my office and the water resource people, and your people to get together as early as possible so that we can set the date. I think that is the first thing that we want to establish. The place and the program can be worked out within our own staff, but I shall encourage our people to establish the date at a very early time so that each of you can put it aside on your agenda with the idea that we sincerely hope each and every one of you and your associates that may have missed this Conference will be our guests in North Dakota for the 5th Annual Missouri River Basin Governors' Conference.

I bring you this invitation with a great deal of anticipation. I don't know how royally we can entertain you, but it will be the best that we can do. Although I am sure we cannot exceed the hospitality that has been extended by you and your people. Governor Teasdale, you set a mark and a goal for us to attempt to achieve. Thank you for this opportunity, and do come see us next year.

Governor Teasdale:

Thank you, Governor. If the Governors have no further business and, Chairman Hall, if you do not, this Conference is adjourned.

CONFERENCE PARTICIPANTS AND OBSERVERS

Harold E. Aldrich
Consulting Engineer
903-14th Street, West
Billings, Montana 59102

John E. Acord
Assistant Administrator
Water Resources Division
Department of Natural Resources & Conservation
32 South Ewing
Helena, Montana 59601

William O. Anderson
Regional Administrator
HUD
300 Federal Building
911 Walnut Street
Region VII
Kansas City, Missouri 65106

Charlotte Baclesse
Missouri Governor's Staff
Capitol Building
Jefferson City, Missouri 65101

John P. Bailey
Division of Regional Operations for
Facilities, Engineering & Construction
Department of HEW
Region VII
601 East 12th Street
Kansas City, Missouri 65106

Donald R. Baker
U.S. Department of Commerce
Office of Secretary/ORSPD
Room 5898C
Washington, D.C. 20230

Donald A. Becker
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

David Bedan
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102

William C. Brabham
Director
State Conservation Commission
Henry A. Wallace Building
Des Moines, Iowa 50319

Richard E. Brown
2104 East 54th Street
Sioux Falls, South Dakota 57103

Robert J. Burian
Yankton Sioux Tribe
Rural Route #3
Wagner, South Dakota 57380

Kathleen Q. Camin, Ph.D.
Regional Administrator
EPA, Region VII
324 East 11th Street
Kansas City, Missouri 64106

H. Eugene Chubb
Kansas City Power & Light
Box 679
Kansas City, Missouri 64141

Russell Clements
Kansas Water Resources Board
419 South Main
Ottawa, Kansas 66067

Vicki L. Contreras
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

John M. Crane
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

Win Curtiss
Basin Electric Power Cooperative
1717 East Interstate
Bismarck, North Dakota 58501

Fred E. Daubert
Chief
Project Planning & Construction
Water Conservation Board
1313 Sherman Street, Room 823
Denver, Colorado 80203

Dana M. Davis
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

John Dewey
Assistant Chief Engineer
Kansas Water Resources Board
503 Kansas Avenue, Suite 303
Topeka, Kansas 66603

Jim Doesburg
Missouri Department of Natural Resources
P.O. Box 1368
Jefferson, Missouri 65102

Col. Paul C. Driscoll
Deputy Division Engineer for Civil Corps of Engineers
P.O. Box 103, Downtown Station
Omaha, Nebraska 68101

Robert L. Dunkeson
Planning Director
Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102

Russ Dushinske
North Dakota Water Users
Devils Lake, North Dakota 58301

Mike Dwyer
North State Water Commission
900 East Boulevard
Bismarck, North Dakota 58505

Thomas K. Eason
Adviser
Nebraska Natural Resources Commission
Rural Route #1
North Bend, Nebraska 68649

Jim Eastgate
Apple Creek Unit
1021 - 8th Street
Bismarck, North Dakota 58501

John Ehrenfeld
Chairman
New England River Basins Commission
53 State Street
Boston, Massachusetts 02109

C. Dale Ericksen
Department of Energy
P.O. Box 26247
Lakewood, Colorado 80226

Christine A. Ervin
Office of Administration
Division of Budget & Planning
Room 129 Capitol Building
Jefferson City, Missouri 65102

Vernon Fahy
State Engineer
North Dakota State Water Commission
900 East Boulevard
Bismarck, North Dakota 58505

Sherry R. Fisher
Governor's Committee for
Conservation of Outdoor Resources
3663 Grand
Des Moines, Iowa 50312

Joseph W. Fitzpatrick
Missouri Department of Natural Resources
615 East 13th Street
Kansas City, Missouri 66206

Hans Foerstel
Environment Canada
1901 Victoria Avenue
Regina, Saskatchewan S4P 3R4

John E. Frost, Jr.
U.S. Water Resources Council
2120 L Street
Washington, D.C. 20015

R. P. Gallagher
North Dakota State Water Commission
105 Third Avenue, Northwest
Mandan, North Dakota 58554

Stanley W. Gappa
U.S. Bureau of Reclamation
P.O. Box 2553
Billings, Montana 59102

Chris Garvey
Corps of Engineers
P.O. Box 103, Downtown Station
Omaha, Nebraska 68101

Guy Gibson
Big Blue River Basin
1720 Topeka Avenue
Topeka, Kansas 66612

Joseph Gibson
Department of Natural Resources
Water Resources Planning
Box 34 Centennial Building
658 Cedar Street
St. Paul, Minnesota 55155

Capt. James G. Glasgow
Ports and Waterways Liaison Officer
Second Coast Guard District
1430 Olive Street
St. Louis, Missouri 63101

Truman Goins
HUD

Mel Gordon
Chairman
Pacific Northwest River Basin Commission
1 Columbia River
Vancouver, Washington 98660

Gordon Gray
North Dakota State Water Commission
837 Chautauqua Boulevard
Valley City, North Dakota 58072

Jim Gritman
U.S. Fish & Wildlife Service
P.O. Box 25486
Denver Federal Center
Denver, Colorado 80225

Joe D. Hall
Bureau of Reclamation
Building 20
Denver Federal Center
Denver, Colorado 80225

Millard W. Hall
Chairman
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

Carroll M. Hamon
Staff Director
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

Neil Haugerud
Chairman
Upper Mississippi River Basin Commission
510 Fort Snelling
Twin Cities, Minnesota 55111

Alan S. Hersch
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

Thomas Higgins
HEW
Federal Building
Kansas City, Missouri 64106

Allen Hjelmfelt
USDA, SEA, AR
207 Buis Loop 70 East
Columbia, Missouri 65201

Raymond H. Hogrefe
Division Engineer
Federal Highway Administration
Federal Building, Room 487
100 Centennial Mall North
Lincoln, Nebraska 68508

Wallace B. Howe
Missouri Department of Natural Resources
Geology and Land Survey Division
P.O. Box 250
Rolla, Nebraska 65401

William B. Hutchinson
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

Rudolph F. Jass
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

George S. Jennings
Bureau of Indian Affairs
Department of the Interior
Billings, Montana 59101

Wilbur M. Jenny
U.S. Department of Energy
324 East 11th
Kansas City, Missouri 64106

Stewart H. Jessee
U.S. Department of Agriculture
New Federal Courthouse Building
Lincoln, Nebraska 68508

Bill Johnson
Investor Owned Utilities
Pierre, South Dakota 57501

Pat Johnson
State Office of Administration
Jefferson City, Missouri 65101

Roy Johnson
Midland Empire Flood Control - Rural Route #2
Rushville, Missouri 64484

Ted Johnson
Midland Empire Flood Control - Rural Route #2
Rushville, Missouri 64484

Thomas Kalitowski
Chairman
Minnesota Water Planning Board
Room 600
150 East Kellogg Boulevard
St. Paul, Minnesota 55101

Gus J. Karabatsos
Chief of the Planning Division
Corps of Engineers
P.O. Box 103, Downtown Station
Omaha, Nebraska 68101

Joyce Kelley
Staff Assistant
Office of Land and Water Resources
Department of the Interior
18th & C Streets, N.W.
Room 6620
Washington, D C. 20240

John B. Kemp
Midcontinent Federal Regional Council
Room 634 - 601 East 12th Street
New Federal Office Building
Kansas City, Missouri 64106

Glen E. Kirk
Bureau of Reclamation
444 S E. Quincy
Topeka, Kansas 66683

Alan H. Kirshen
Metropolitan Area Planning Agency
2133 California
Omaha, Nebraska 68178

Thomas Kirkwood
A. C. Kirkwood & Associates
8080 Ward Parkway, Suite 200
Kansas City, Missouri 64114

Fred J. Krumholtz
Chairman
Ohio River Basin Commission
Suite 208-220, 36 East 4th Street
Cincinnati, Ohio 45202

Ron Kucera
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102

Fred A. Lafser, Jr.
Director
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102

Ted Lerew
James Basin Water Development Association
Rural Route #2, Box 42
Faulkton, South Dakota 57438

Emil V. Lindseth
Consulting Engineer
720 Forest Street
Denver, Colorado 80220

Bill Lloyd
Bureau of Reclamation
P.O. Box 2553
Billings, Montana 59102

Clement R. Lord
Interstate Streams Engineer
State Engineer's Office
Barrett Building
Cheyenne, Wyoming 82002

John T. Loucks
Old West Regional Council
201 Main Street, Suite D
Rapid City, South Dakota 57701

Thomas W Lowe
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

Terry Lynott
Missouri Basin Planning Officer
Department of the Interior
Building 67, Room 690
Denver Federal Center
Denver, Colorado 80225

Russell G Mann
Assistant Regional Hydrologist
National Oceanic and Atmospheric Administration
New Federal Office Building, Room 1836
601 East 12th Street
Kansas City, Missouri 64106

Kenneth G. Manus
U.S. Department of Agriculture
Soil Conservation Service
555 Vandiver Drive
Columbia, Missouri 65201

Benny Martin
State Conservationist, SCS
Federal Building
U.S Courthouse Room 345
Lincoln, Nebraska 68508

Gary E. McClure
FEMA
911 Walnut Street
Kansas City, Missouri 64106

Rose McCullough
Sierra Club
1945 A Street
Lincoln, Nebraska 68502

Stephen L R. McNichols
Secretarial Representative
Department of Commerce
Title Building, Room 515
909 17th Street
Denver, Colorado 80202

Bob McPhail
Western Area Power Administration
Golden, Colorado 80401

James A McPherson
Mo-Ark Basins Association
P.O. Box 1160
Kansas City, Kansas 66117

Alan Merson
Regional Administrator
EPA, Region VIII
Lincoln Tower
1860 Lincoln Street
Denver, Colorado 80203

Charles P Michael
Missouri Department of Natural Resources
P O Box 176
Jefferson City, Missouri 65101

Joe M Monahan
State of Montana
Governor's Office
State Capitol
Helena, Montana 59601

Bernard D Murphy
Regional Engineer
Federal Regulatory Commission
31st Floor, Federal Building
230 South Dearborn Street
Chicago, Illinois 60604

G A. Neideffer
Apple Creek Unit
1021 - 8th Street
Bismarck, North Dakota 58501

Bill Nelson
Kirkham Michael & Associates
9110 West Dodge Road
Omaha, Nebraska 68114

Jeff Nelson
East River Electric Power Cooperative
Drawer E
Madison, South Dakota 57042

Warren R. (Bob) Neufeld
Secretary
South Dakota Department of Water and Natural Resources
Room 209, Foss Building
Pierre, South Dakota 57501

Donald L. Ohnstad
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

Lorraine Oligschlaeger
Missouri Governor's Staff
Capitol Building
Jefferson City, Missouri 65101

Dale B. Parke
Head, Water Quality Standards
EPA, Region VII
1735 Baltimore
Kansas City, Missouri 64108

William B. Patterson
Assistant State Conservationist
Federal Building
U.S. Courthouse, Room 345
Lincoln, Nebraska 68508

Lloyd Porter
Bureau of Reclamation
1640 Frank
Huron, South Dakota 57350

James A. Power, Jr.
Executive Director
Kansas Water Resources Board
503 Kansas Avenue, Suite 303
Topeka, Kansas 66603

William L. Powers
KWRRI
Waters Annex
Kansas State University
Manhattan, Kansas 66506

William C. Ramige
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

Christine T. Reck
Missouri Department of Natural Resources
P.O. Box 1368
Jefferson City, Missouri 65102

Philip L. Rotert
Corps of Engineers - Kansas City District
601 East 12th Street
Kansas City, Missouri 64106

Col. Clyde A. Selleck
Division Engineer
Corps of Engineers
P.O. Box 103, Downtown Station
Omaha, Nebraska 68101

Harris Sherman
State of Colorado
1313 Sherman
Denver, Colorado 80203

Caleb Shields
Fort Peck Assiniboine & Sioux Tribes
P.O. Box 1027
Poplar, Montana 59225

Kharol E. Stefunec
Bureau of Reclamation
Department of the Interior
Denver Federal Center, Room 70
Lower Missouri Region, Building 20
Denver, Colorado 80225

Ben Stephenson
FEMA
911 Walnut Street
Kansas City, Missouri 64106

Scott Totten
Missouri Department of Natural Resources
Box 1368
Jefferson City, Missouri 65101

Wil Ulman
U.S. Geological Survey (RALI)
690 Bellaire Street
Denver, Colorado 80220

Gary Ultican
Environmental Officer
HUD, Region VII
Federal Building
911 Walnut Street
Kansas City, Missouri 64106

Jerry D. Vineyard
Missouri Department of Natural Resources
Box 250
Rolla, Missouri 65401

J. D. Vogwill
Harza Engineering Co.
150 South Wacker Drive
Chicago, Illinois 60606

John J. Walker
USDA Soil Conservation Service
555 Vandiver
Columbia, Missouri 65201

Thomas C. Whitford
Montana Inter-Tribal Policy Board
300 North 25th Street, Suite 103
Billings, Montana 59101

Arlene Wilhelm
North Dakota Water Commission
104 3rd Avenue
Dickinson, North Dakota 58601

Dayle Williamson
Executive Secretary
Nebraska Natural Resources Commission
301 Centennial Mall South
P.O. Box 94876
Lincoln, Nebraska 68509

Leonard U. Wilson
Council of State of Governments
Box 224
Waitsfield, Vermont 05673

Gerald R. Zimmerman
MRBC
10050 Regency Circle, Suite 403
Omaha, Nebraska 68114

NEWS MEDIA

Jim Aucoin
Lincoln (Nebraska) Journal
926 P Street
Lincoln, Nebraska 68501

Marty Blackmore
WDAF-TV
Signal Hill
Kansas City, Missouri 64108

Philip L. Burgert
Kansas City Times
1729 Grand Avenue
Kansas City, Missouri 64111

Stan Carmack
KCMO-TV
4500 Johnson Drive
Fairway, Kansas 66205

Jerry Dalporto
KCMO-TV
4500 Johnson Drive
Fairway, Kansas 66205

Scott C. Kraft
Associated Press
Star Building
Kansas City, Missouri 64108

Elizabeth A. Leech
UPI
5700 Broadmoor
Mission, Kansas 66222

Mike Long
KMBC-TV
1049 Central
Kansas City, Missouri 64109

Don McCabe
Nebraska Farmer Magazine
5601 O Street
Lincoln, Nebraska 68510

Harold E. Mills
St. Joseph Gazette
9th and Edmond Streets
St. Joseph, Missouri 64501

Mark Poindexter
KCUR Radio
5100 Rockhill Road
Kansas City, Missouri 64110

Richard Ralls
Kansas City Times
1729 Grand
Kansas City, Missouri 64110

Douglas M. Retherford
WHB Radio
106 West 14th
Kansas City, Missouri 64106

Cynthia Smith
WDAF-TV
Signal Hill
Kansas City, Missouri 64108

Paul G. Wagman
St. Louis Post-Dispatch
900 North 12th Street
St. Louis, Missouri 63130

T. G. Watts
Kansas City Star
1729 Grand
Kansas City, Missouri 64108

Bob Werly
KMBC-TV
1049 Central
Kansas City, Missouri 64108

John M. Wylie II
Kansas City Star-Energy and Environment Representative
1729 Grand
Kansas City, Missouri 64108

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Missouri River Basin Commission